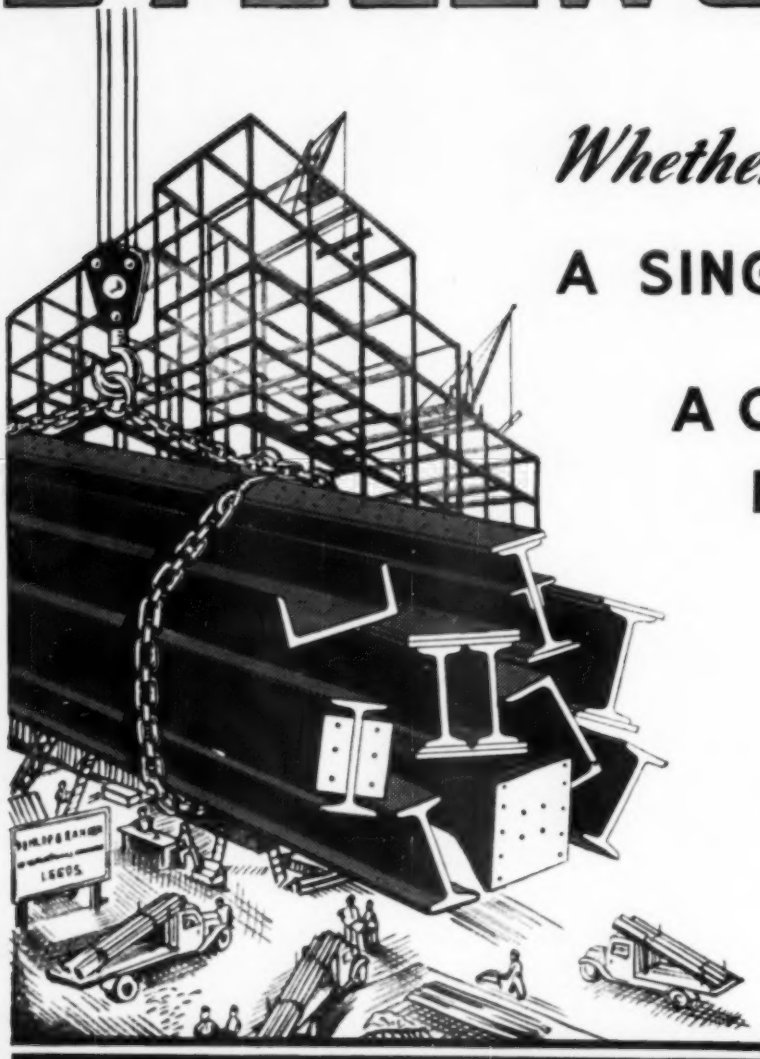
THE ARCHITECT & BUILDING NEWS

7 APRIL 1955 · VOL. 207 · NO. 14 · ONE SHILLING WEEKLY

- SHOP IN LEICESTER
- LIFT SLAB CONSTRUCTION
- CURRENT MARKET PRICES

PUBLISHED IN LONDON SINCE 1854

STEELWORK



Whether you want

A SINGLE JOIST
OR
A COMPLETE
BUILDING

Try

D&R
STEELWORK
SERVICE

DUNLOP & RANKEN LTD
CONSTRUCTIONAL ENGINEERS
IRON & STEEL STOCKHOLDERS

TELEPHONE
27301 (20 LINES)

LEEDS

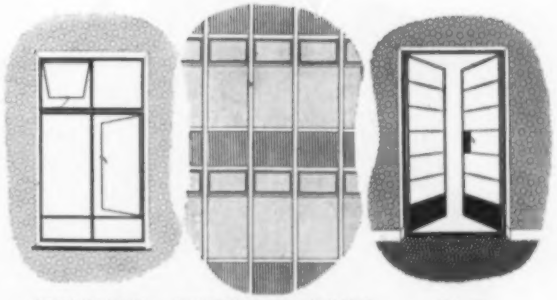
TELEGRAMS
"SECTIONS LEEDS"

John Goodger looks far ahead

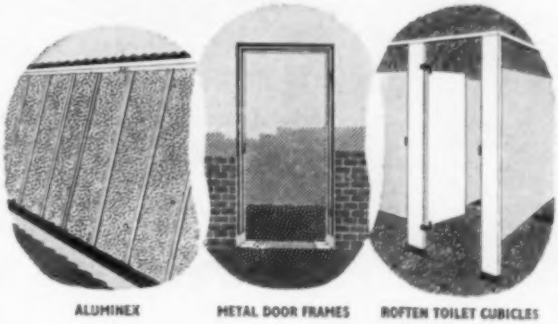
"If I'm to spend my life supplying windows" reasons John Goodger, Williams & Williams area manager of the Eastern Counties "I'd better know all about them". So, acquiring a derelict stable, he puts in—with his own hands—metal windows, door frames and Aluminex patent glazing and, in doing so, makes himself a lovely home. "If I'm to give proper service in this vast area" he goes on "I must get around faster." His speedometer appears permanently fixed at 60 m.p.h. In short, here's a young man whose life is his job, who thinks further than the day after tomorrow, and who has his own service team of draughtsmen, estimators and fixers as a result. A useful chap to have at your call!

*MR. J. E. F. GOODGER, WILLIAMS & WILLIAMS LTD.
43 Fore Street, Hertford (3969)

Other offices at: Belfast (23762). Birmingham (Shirley 3064). Bristol (38907). Bromley (Ravensbourne 6274). Cardiff (27092). Crawley (2200). Glasgow (Douglas 0003). Leeds (21208). Liverpool (Central 0325). London (Sloane 0323). Maidstone (51750). Manchester (Blackfriars 9591). Newcastle-upon-Tyne (21353). Nottingham (52131). Reading (50291). Sheffield (51594). Southampton (26252).



METAL WINDOWS WALLSPAN CURTAIN WALLING DOORS



ALUMINEX METAL DOOR FRAMES ROFTEN TOILET CUBICLES

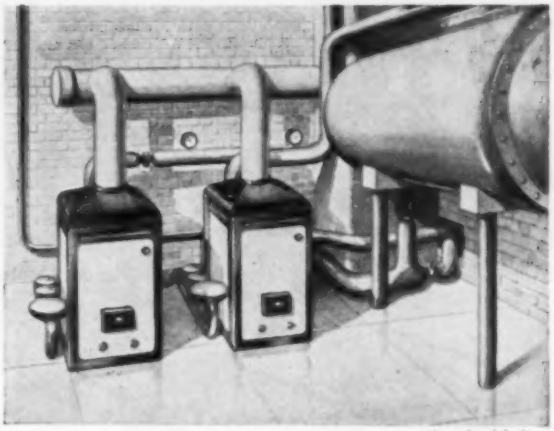
METAL WINDOWS **WILLIAMS & WILLIAMS** *Member of the Metal Window Association*

There's always another use for gas

There's always another use for gas...

...for heating liquids

From swimming-bath water to salt-bath solutions, gas heating has no rival. Gas goes to work rapidly and is simple to operate. Whatever the quantity, whatever the liquid, it burns clean and constant to give you the precise heat you require.



Gas-fired boilers

'Operation Rescue'

...for 'Operation Rescue'

Gas can play an important part in improving housing conditions. Costs are kept low by use of existing gas supplies and absence of elaborate structural work. Gas adaptability is particularly suitable to the conditions found in 'Operation Rescue' properties, and, of course, the popularity of gas for water heating and cooking is unquestioned.

...for heating air

Practically any problem requiring heated air can be solved by gas whether it is for space heating, drying or for industrial processing.

Apart from its smokelessness and cleanliness, gas gives you infinite, accurate and automatic controllability at every stage. Supply is assured and constant calorific value is guaranteed. And gas saves because it needs no stoking or storage space.

Radiant heaters

Consult your area gas board

The Gas Industry makes the best use of the Nation's coal

ISSUED BY THE GAS COUNCIL

G.C.G.-A12

NOW!

CELOTEX
REGD TRADE MARK

FIVE-STAR

HARDBOARD

- EXCEPTIONAL STRENGTH
- LARGE SIZED SHEETS FOR ECONOMY
- ATTRACTIVE, RICH BROWN COLOUR
- IDEAL FOR ALL APPLIED FINISHES
- EASILY, QUICKLY HANDLED & FIXED

for quicker and more economical results

Every sheet of Celotex Five-Star Hardboard is ready for instant use *and* it can be used right up to the last piece. It is grainless, so that you are never troubled by knot-holes *and* it will not crack, split or splinter. It can be cut, nailed, bevelled and shaped with ordinary wood-working tools. You will find it cheaper, quicker and more reliable than wood for innumerable household jobs. Your results will be just that much better if you use Celotex Five-Star Hardboard! Send today for further details, samples and the name and address of your nearest Celotex distributor.

CELOTEX
REGD TRADE MARK
FIVE-STAR HARDBOARD

Made in Great Britain with all-British materials by
Celotex Limited, North Circular Road, Stonebridge Park, London, N.W.10. Telephone: ELGar 5717 (10 lines)

7 OUT OF 8 'IDEAL HOME EXHIBITION' HOUSES had Electrolux *Silent* 'built in' Refrigerators

1 The Dormer House
by E. & L. Berg Ltd.
2 Unity Three-Storey Flats
by Unity Structures Ltd.
3 The Windsor House
by Lawdon Partners Ltd.
4 The Knowle House
by E. & L. Berg Ltd.
5 The Cornish Unit House
by Selleck, Nicholls & Co. Ltd.
6 Connaught Bungalow
by New Ideal Homesteads Ltd.
7 The Crouch House
by G. T. Crouch Ltd.

Electrolux excels in easy installation . . . with all these added advantages: No machinery—no moving parts to wear out. No vibration. No interference with Radio or T.V. Permanent Silence. Operation by Electricity or Gas. 5 Year Guarantee on the *Silent* Cooling Unit. Readily available for all new housing—Private and Local Authority—for kitchen modernisations and conversions.

ELECTROLUX LTD. (Contracts Dept.AB), 153/5 REGENT STREET, LONDON, W.1. TEL: REGent 7252

BALANCED HEAT

Gulf Panel Radiators provide the perfect balance of radiation and convection to ensure the highest standard of heat comfort coupled with efficiency of operation and maximum fuel economy.

Gulf long life Radiators are available in a wide range of Column and Wall Panel types, in any length and in curved and angled form. Gulf specialise in producing radiators for unusual and exacting requirements. Gulf are installed throughout the country and in the largest building built since the war.

These photographs, of London County Council's new Secondary School at Kidbrooke show at the right, a decorative and wall saving application of Gulf Panels in the kitchens and below the uninterrupted lines of a long panel in one of the staff rooms.

LIGHT IN WEIGHT
(Ideal for wall fixing)

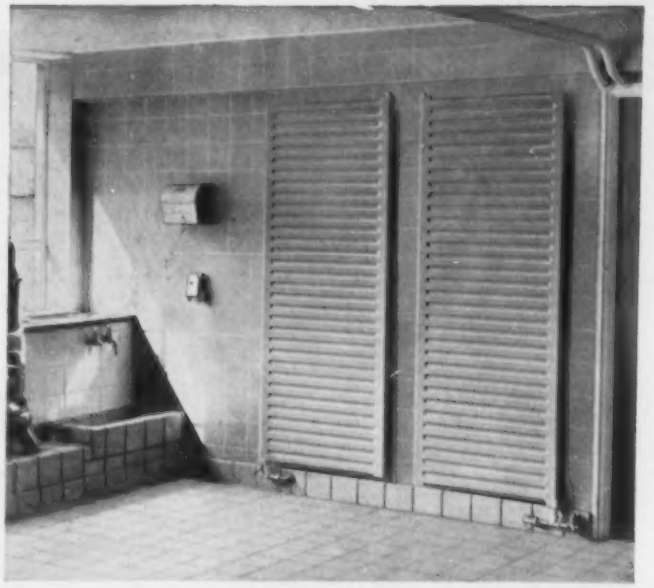
EASY TO PAINT, CLEAN AND KEEP CLEAN

COST LESS

ECONOMICAL TO FIX

FROST PROOF

MORE RESPONSIVE TO THERMOSTATIC CONTROL

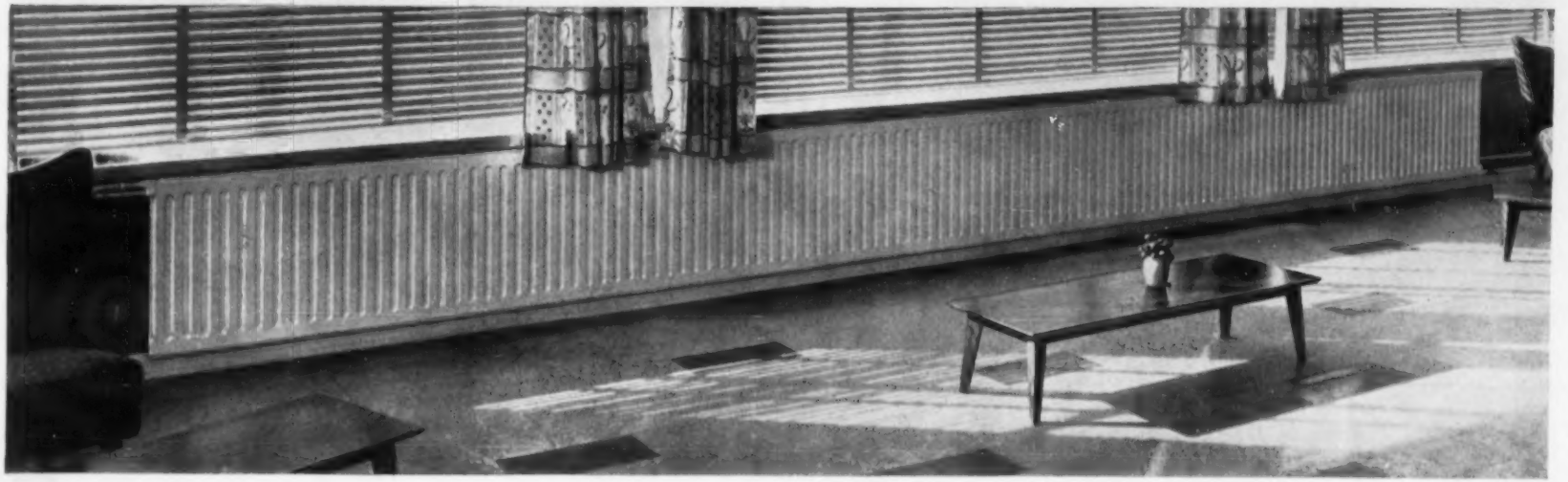


GULF RADIATORS

INSTALL **GULF** *LONG LIFE RADIATORS*

GULF RADIATORS LIMITED, PENARTH ROAD, CARDIFF. *Tel.:* 20591/2.
London Office and Showrooms: 229 REGENT STREET, LONDON, W.1. *Tel:* REGent 1051/6.

GULF MAKE RADIATORS IN ANY LENGTH AND IN CURVED OR ANGLED FORM



Designer: Eric Chick Esq. Consulting Architects: Messrs. Powell & Moya A/A.R.I.B.A.

Highworth Houses at Baughurst, Hampshire

Besides being most attractive, Highworth Houses are low both in initial and in maintenance costs, and are speedy in erection. This scheme has been carried out by Cubitts in association with Highworth Processes Ltd. for the Kingsclere & Whitchurch Rural District Council.

The project has been awarded the Ministry of Housing & Local Government Housing Medal and Diploma (Southern Region) 1954.

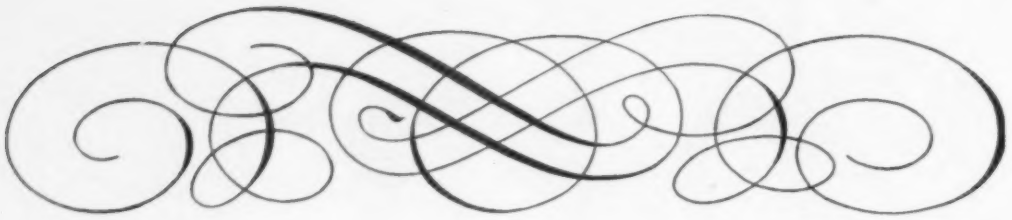
NOW, AS IN THE PAST . . .

CUBITTS

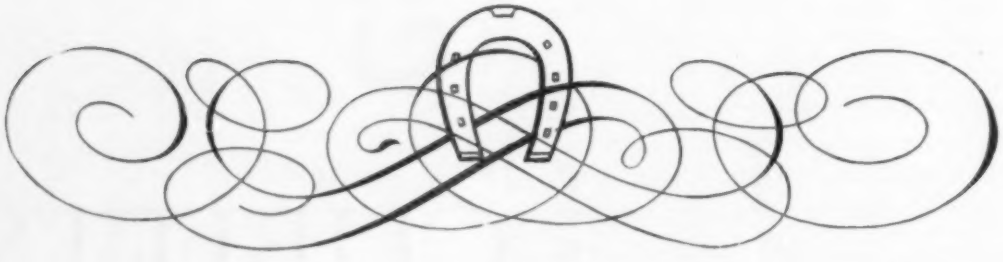
BUILD FOR THE FUTURE

ENGLAND · SCOTLAND · OVERSEAS

HOLLAND & HANNEN AND CUBITTS LIMITED · ONE QUEEN ANNE'S GATE · WESTMINSTER · SW1



For
Superior Concrete
use
Ketton Cement



THE KETTON PORTLAND CEMENT CO LTD · ALBION WORKS SHEFFIELD

K/19

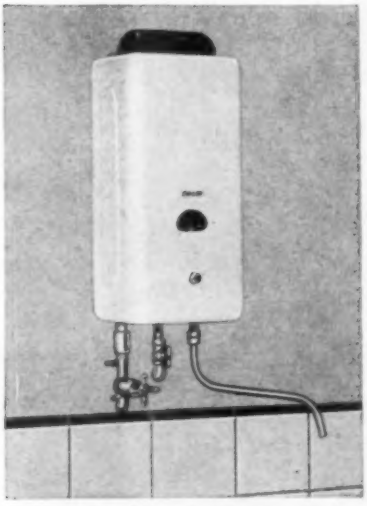
When you specify

EWART **INSTANTANEOUS GAS WATER HEATERS**

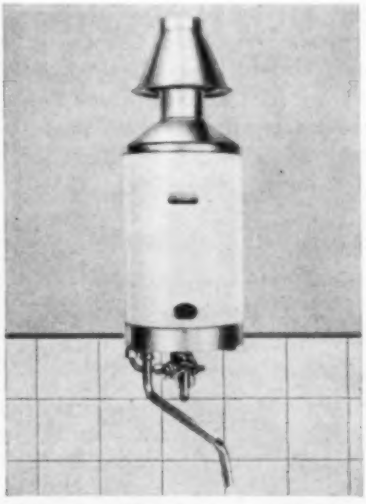
you specify dependability

There are solid reasons for the dependability of Ewart water heaters. They are built to give long service with the minimum of maintenance.

- They have self-clearing steatite-tipped Bray burners that resist corrosion and blockage. The types of heat-exchanger employed are simple and designed to maintain a full flow of air and products of combustion, and thus obviate fouling of the flueways.
- Automatic gas governors are fitted to these Ewart water heaters to prevent over-gassing and ensure consistent performance, thereby prolonging the life of the heating bodies.
- Where pilot safety devices are fitted they are of exceptionally robust design. Alternatively, the interlocking tap safety device is of a well-tried pattern.



EWART M75. *A sink water heater. Can easily be adapted as a multipoint to supply two sinks or handbasins—through existing taps if desired.*



EWART S140. *A low-priced highly efficient instantaneous bath water heater. Will also supply adjacent handbasin through swivel spout.*

EWART M210. *A multipoint water heater which will supply instant and endless hot water in bathroom, kitchen, cloakroom, etc.*

EWART *famous for over 120 years!*

EWART AND SONS LTD • WORKS ROAD • LETCHWORTH • HERTS

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JOINERY
WINDOWS OF ALL TYPES
DOORS & DOOR FRAMES
GATES · KITCHEN UNITS
STAIRS & ALL JOINERY
With one of the largest Joinery Organisations in the Country at your disposal, backed by over 65 years' solid experience, you will readily appreciate the many advantages to be gained by specifying S.B.K. Joinery. We are in a position to give unrivalled service for the supply of quality woodwork.

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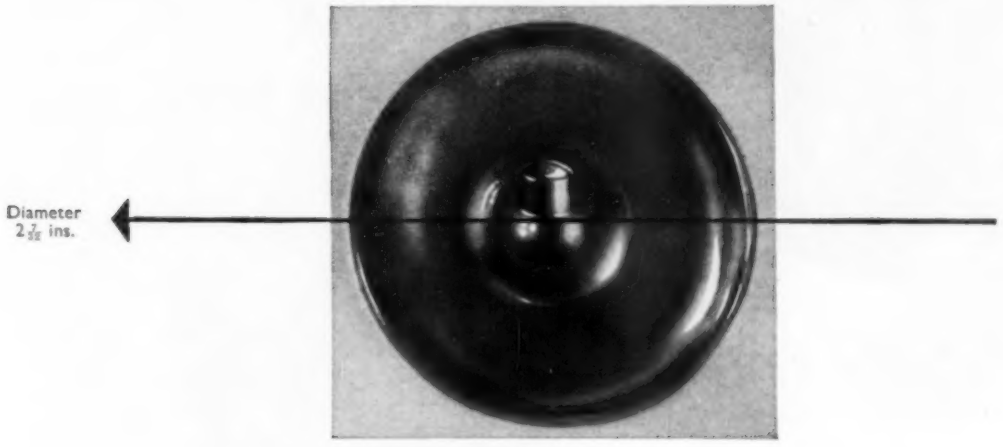
Telephone : RIChmond 0165.

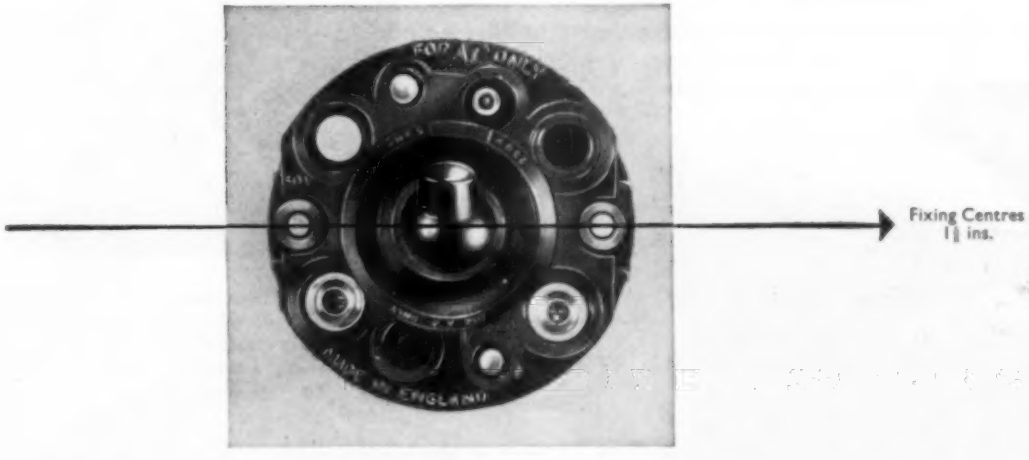
S.3425— 5 AMP. SINGLE POLE

'MUTAC' SURFACE SWITCH

with terminals **below** the centre line



allows direct replacement of old type switches without alterations to existing blocks or wiring



'MUTAC' 5 AMP. SINGLE POLE SURFACE SWITCH

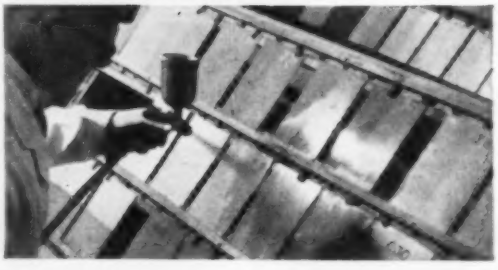
A G&C PRODUCT

THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON, W.C.2

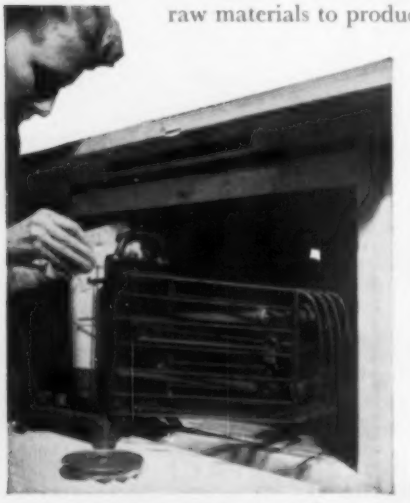
Here's the CELLON weather man!

He can't tell whether it's a brolly or a sunshade you'll be needing to cope with to-morrow's climate, but when it comes to knowing how a finish is going to stand up to its working environment, he's your man—or rather he's our man. The equipment he uses can reproduce and record how the finish you will be buying is going to look after years of exposure to the worst influences of the elements and working conditions. His knowledge is collated with that of equally keen and far-sighted specialists and technicians to help the finest machinery and the finest raw materials to produce the finest paints.

Machine for accelerated weathering tests.



Test panels receiving salt spray treatment.



Recorder for temperature and humidity.

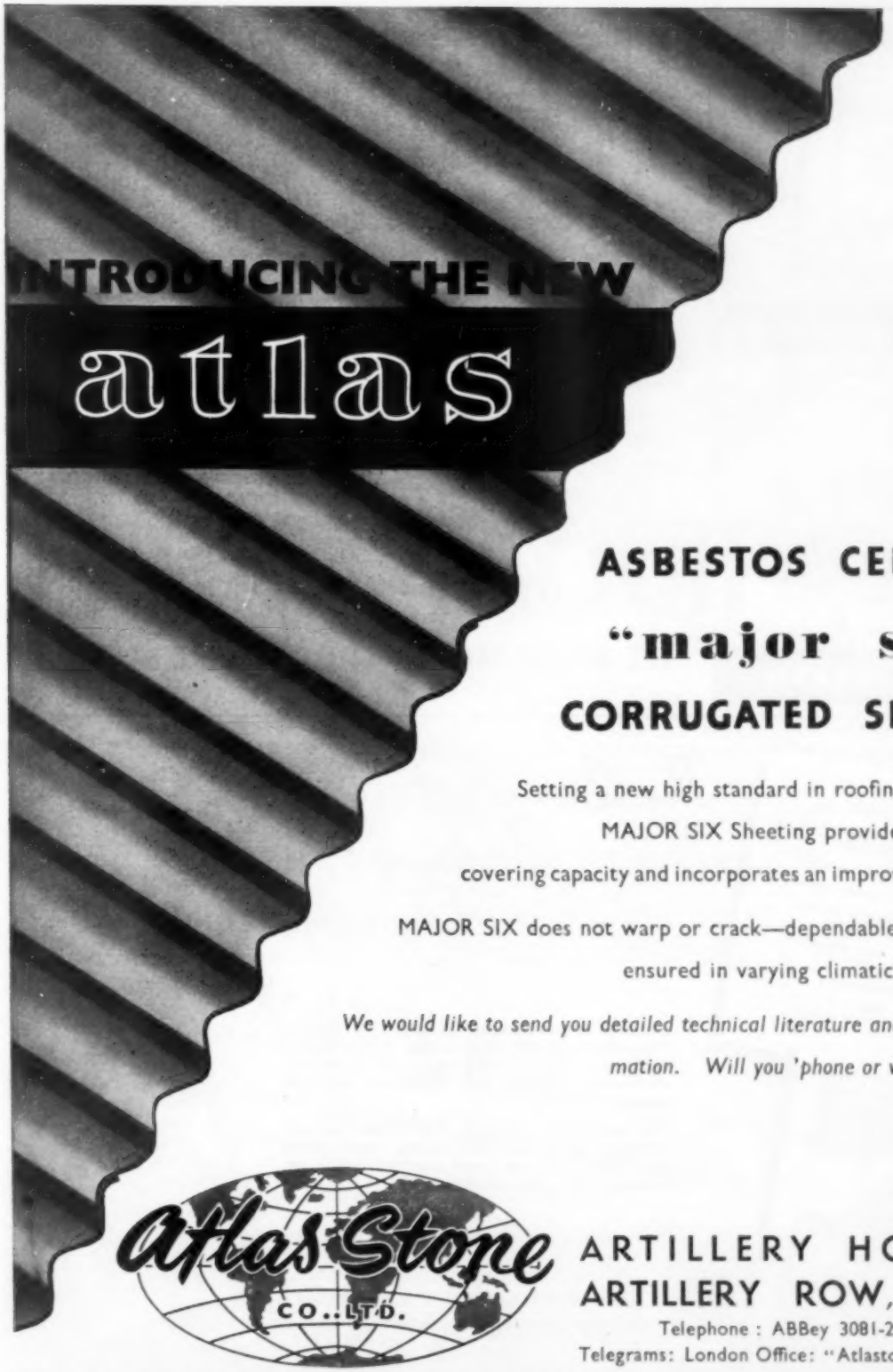
Cerrux Decorative Paints

The Cerrux range of Decorative Finishes includes suitable materials for all classes of decoration, whether for the home, public buildings or the more rigorous conditions of the factory. There is also available Cerreen Satin Emulsion Paint—the ideal wall finish. The Building and Decorating Division of Cellon Limited will gladly give advice on specifications and colour schemes.

CELLON FINISHES *the best*

CELLON LIMITED · KINGSTON-ON-THAMES · PHONE: KINGSTON 1234

CVS-804



INTRODUCING THE NEW

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ASBESTOS CEMENT

"major six"

CORRUGATED SHEETS

Setting a new high standard in roofing materials, MAJOR SIX Sheeting provides increased covering capacity and incorporates an improved side lap.

MAJOR SIX does not warp or crack—dependable protection ensured in varying climatic conditions.

We would like to send you detailed technical literature and full information. Will you 'phone or write today ?

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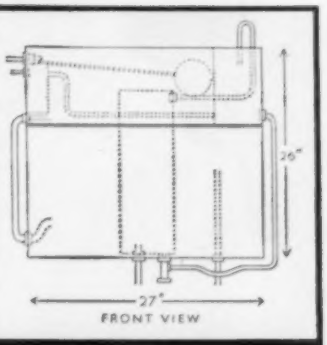
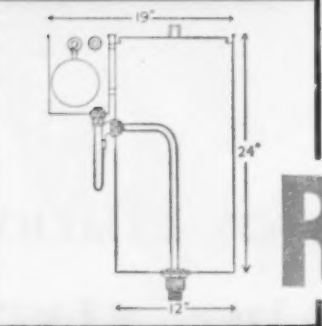
Works at MELDRETH · GREENHITHE · STROOD · CAMBRIDGE · PARK ROYAL (LONDON) · SHORNE · WING · RYE (SUSSEX)



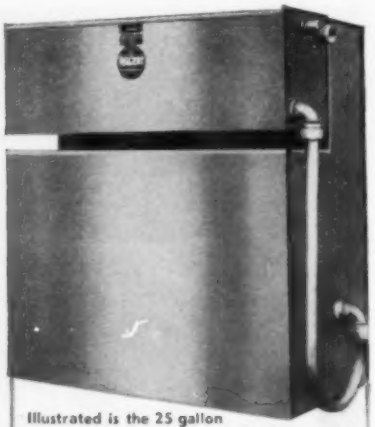
THE CALORIFIER



THE DURHAM

A BIG saving on installation costs

Rolyat tanks represent a saving all along the line, quite apart from the extra quality which is built into them. Special tanks are made for awkward situations at no extra cost, and an advisory service is at your command for any installation. They are specified by local authorities, Architects and Heating Engineers throughout the country.



Illustrated is the 25 gallon "Rolyat" recessed "Durham" tank. Please send me details of the range of "Rolyat" tanks.

NAME _____

ADDRESS _____

_____ A/1

ROLYAT PATENT HOT WATER TANKS

THE ROLYAT TANK CO. LTD. CROMWELL RD. YORK

The Quality Felts Roofings and Dampcourses

BLACKWELLS

STANDARD BITUMEN ROOFING

PURE BITUMEN DAMPCOURSES

UNDERSLATING FELTS

SHEETING AND PACKING FELTS

BNR RAVEN BITUMEN ROOFING

WATERPROOF DURABLE ODOURLESS NON-CONDUCTING VERMIN PROOF

For over 50 years Blackwells have been making Felts, Roofings and Dampcourses of outstanding quality and value. To-day these products provide Architects, Builders and Handymen with an unsurpassed range.

The same high standard of workmanship and materials goes into the roofing work which Blackwells carry out under contract. May we quote you for your requirements?

BNR BLACKWELLS REINFORCED UNDERLINING No. 50

A BITUMEN IMPREGNATED FELT REINFORCED WITH A HESSIAN BACKING

UNTEARABLE

Write for samples & literature

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FROM THE SNOWCEM FILE:—

Thompson & Norris Factory, Great West Road

This fine modern factory which has been recently extended and painted with white Snowcem, attracts the attention of the thousands who daily travel on the Great West Road.

The old rendering was first removed and the new rendering applied to a key coat of Plaskey, made with Cemprover No. 4, two coats of white Snowcem subsequently being painted on.

Architects: Robert Sharp & Son A/L.R.I.B.A.
Contractors: M. J. Gleeson (Contractors) Ltd.
Plastering Contractors: Campbell Horne & Co. Ltd.

SNOWCEM is available in seven colours: white, cream, deep cream, buff, pink, silver-grey and pale green.
CEMPROVER, in 4 grades, is a liquid additive for use with Snowcem, Cement Finishes, Concrete, etc.

OUR TECHNICAL AND ADVISORY DEPARTMENT IS AT YOUR SERVICE

SNOWCEM WATERPROOF CEMENT PAINT

BLUE CIRCLE PRODUCT CMC *Decorates and protects at LOW cost*

★ BRITISH CEMENT IS THE CHEAPEST IN THE WORLD

This waterp… does not brush, peel or flake off…

…ith the ex… …gs in bright …uired.

THE CEMENT MARKETING COMPANY LIMITED
Portland House, Tothill Street, London, S.W.1
or G. & T. EARLE LTD., WILMINGTON, HULL.
THE SOUTH WALES PORTLAND CEMENT & LIME Co. Ltd.,
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CARPENTERS
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STRONG LIGHT *and* TRANSLUCENT ROOFING

What similar roofing material can TAKE A MAN'S WEIGHT — not shatter when a 9 lb. brick hits it from a height of 15 feet — and yet allow 80-85% of light through? So light it solves all handling problems, so easily worked that even the merest amateur can drill, nail or saw it without splintering, RILITE corrugated glass fibre roofing sheet is the answer to YOUR roof lighting problems. Made in standard profiles and sheet sizes.

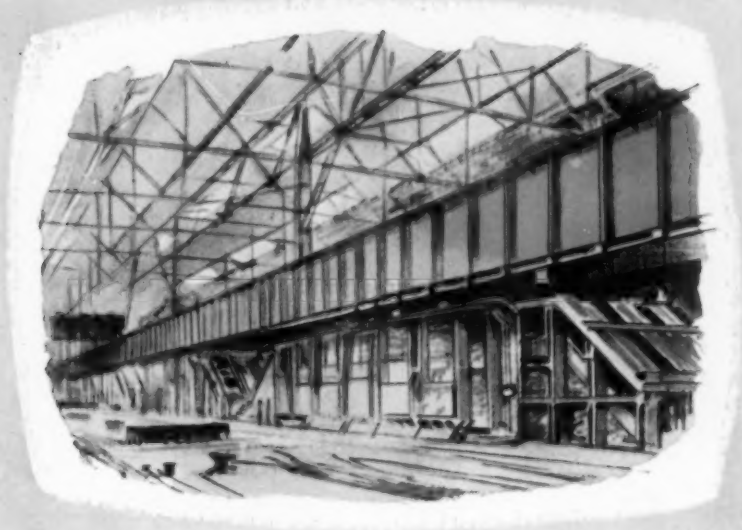
ANOTHER RIL PRODUCT

RILITE
CORRUGATED GLASS FIBRE SHEET

Send now for leaflet, samples and prices.

RUBBER IMPROVEMENT LTD · WELLINGBOROUGH, NORTHANTS · TEL: WELLINGBOROUGH 2218 & 2286

BUILDING WITH STEELWORK



For light or heavy loads

Steel, with its unique combination of advantages, is established as the outstanding structural medium of the world.

Rigidly controlled in quality and dimensions throughout its manufacture, it is consistent in its tensile and compression strengths, which are skilfully utilized in its rolled sections and fabricated members. The simple and well-proved methods of steelwork design are extremely flexible: structures of great height or span, and for vast loads, present no problems.

Moreover, steelwork saves time all along the line. Even while the site is being cleared, steelwork is being fabricated; it is rapidly erected whatever the weather, and with all its connections plainly seen.

It is independent of other trades, and is a dry construction, light for its strength and therefore permitting economies in the foundations.

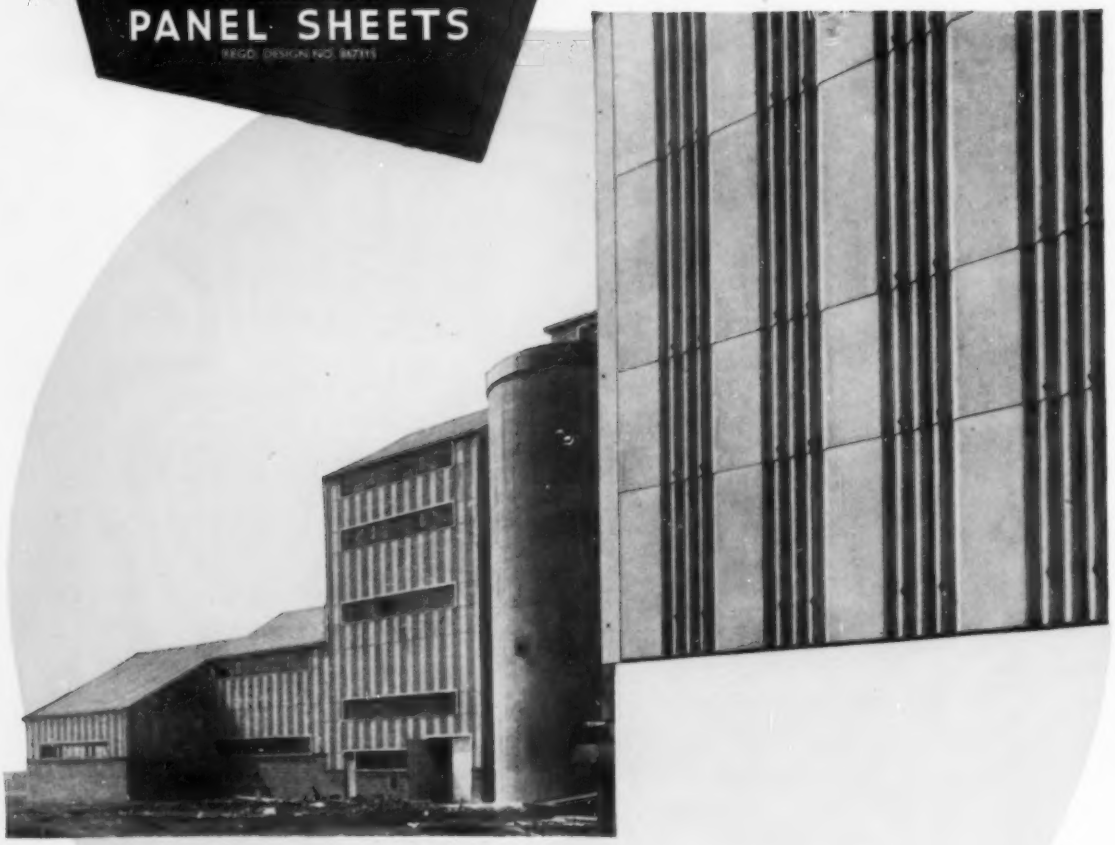
The structural steelwork industry is at your service, with well-equipped fabricators throughout the country.

BRITISH CONSTRUCTIONAL STEELWORK ASSOCIATION
ARTILLERY HOUSE, ARTILLERY ROW, WESTMINSTER, LONDON, S.W.1

STEEL
STRENGTH SECURITY

B·C·S·A

"EVERITE"
REG. TRADE MARK
ASBESTOS-CEMENT
PANEL SHEETS
REGD. DESIGN NO. 847111



This new type asbestos-cement sheeting has been used at the new Cement Grinding and Packing Plant, Tanhouse Lane, Widnes, for the Associated Portland Cement Manufacturers Limited.

The sheet has been introduced specifically to provide additional character in vertical cladded areas.

The sheets have a nett cover width of 3′ 4″ and can be supplied in lengths of 4′ 0″—10′ 0″ rising in 6″ increments to order. Standard stocked lengths—6′ 6″.

TURNERS ASBESTOS CEMENT CO LTD
A MEMBER OF THE TURNER & NEWALL ORGANISATION
TRAFFORD PARK MANCHESTER 17

PS. 2

Nairn brings you floors of "Never Before" Beauty and Service-ability

NAIRN VINYL TILE FLOOR LAID AT THE LONDON ELECTRICITY BOARD SERVICE SHOWROOMS AT PECKHAM.

Proprietors, managers and executives of business premises all over the country are specifying Nairn Vinyl Tile Floors. Housewives, too, are making enquiries at their architect's or builder's about Nairn Vinyl Tile Floors. Everywhere the news is spreading that Nairn brings you floors of 'never before' beauty and utility.

'Never Before' Wear-ability Since the floors of the 53 laboratories in the new Biology Building of Nottingham University would be subject to continual traffic and exposure to all manner of chemicals, the University laboratories themselves tested various types of floor covering. Nairn Vinyl Tiles proved to be the most satisfactory and were used exclusively.

'Never Before' Clean-ability Grease, oil, mud . . . bleach, alkalis, cooking fats . . . all the things that might ruin an ordinary floor don't affect a Nairn Vinyl Tile Floor. And all that's needed to keep it shining clean is an occasional polishing.

'Never Before' Versatility Nairn Vinyl Tile Floors can be laid on any kind of level surface, upstairs, downstairs, or in the basement. As a design component the Nairn Vinyl Tile is extremely versatile, too . . . AND, LAST BUT NOT LEAST, THE COST IS SURPRISINGLY LOW.

For years, both here and in the U.S.A., laboratory research and stringent practical tests have *proved* the wear-resistance of Nairn Vinyl Tile Floors.

Please write to us for further information, literature and advice.

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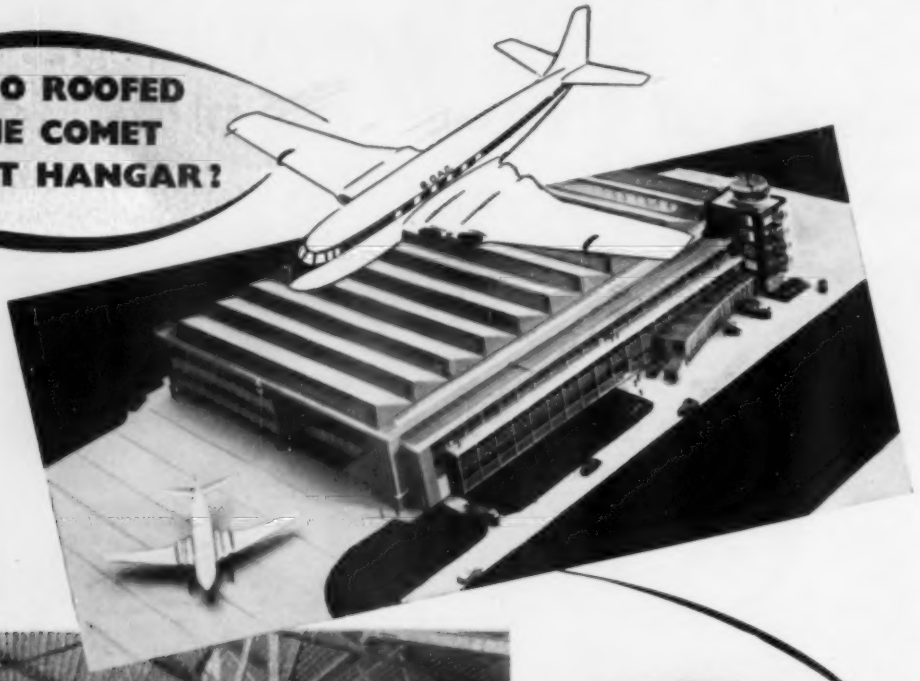
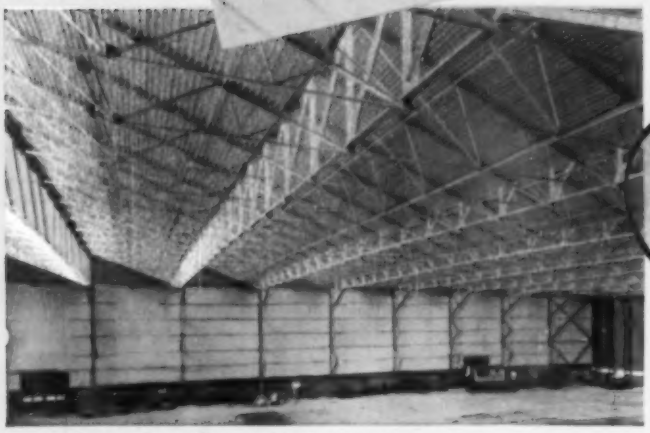
E

WHO ROOFED THE COMET FLIGHT HANGAR?





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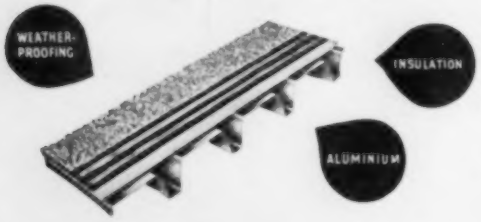

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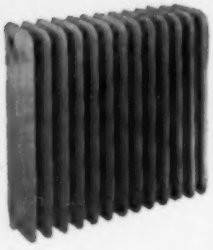

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Vol. 207 No. 14

THE ARCHITECT & BUILDING NEWS

7 April 1955

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OLD AND TRUE

THE Leader writer, who is as anxious as anyone else to drop his pen and catch his holiday train, is faced with a dilemma.

He knows that most of his regular readers will be so preoccupied with their Easter plans to read his page this week, while others who normally never give it a glance may well do so during hours spent in a plane or railway carriage.

If it were not for this incalculable minority the temptation to reprint an old leading article with some such perennial title as "Something Must Be Done," would be irresistible. One might get away with it; after all you can fool all the people *some* of the time.

(*There must be something in a back volume that will bear repetition; but how long will it take to read through them?*)

Here is one from 1945 that looks possible.

"The factors which influence building costs are numerous and involved. Many persons within the industry will know some of them; but it is safe to say that no single person can gauge them all. And a complete list of causes contributory to high or low cost would arouse controversy and disagreement over the inclusion of certain items . . ."

Well, we don't want to do that at the beginning of a holiday. Let's try another, Older and Truer.

"If the private patron is vanishing and the public are taking his place, the profession must think out its position and adjust its ways accordingly . . ."

But the profession is adjusting itself for a four-day break. No that horse won't run either, and anyway the above-mentioned B.R. passenger having exhausted his evening paper, *Time*, *Punch*, *Autocar*, or *Yachting World*, may with another half-hour to run, turn to his architectural leading article in a try-anything-once spirit. Even he might smell a rat and resolve to look up the files after the holiday. We cannot risk the discovery that "Something Must Be Done" is an encore.

So we must grit our teeth and get down to it. There is always *something* to be written about those three sitting ducks, Criticism of Architecture; Criticism of Assessors and Criticism of the R.I.B.A.

(*What is the time? How many words does this make? —"Oh, goodbye Old Boy, catching an early train I see. Lucky Devil, wish I could, but I've got this wretched leader to write. Do you think anybody will read it before Easter? No? Neither do I.*")

If we—the editorial we—had a three-hour train journey to face, what would we want to read? But we have! and it's "Glorious Life," by Derek Barton.

(*But wait a moment, isn't that a clue?*)

It is the duty, nay the privilege, of a leader writer to help his readers relax on the eve of a stand-easy. Forget your work from this very moment. Why are you reading this at all, you are too conscientious dear fellow.

We now see clearly that we started on the wrong foot. We should have offered you one of those snappy, tantalizing did-it-really-happen stories. But next time we will. See this page at Whitsun.

EVENTS AND COMMENTS

THE ELECTRICAL ENGINEERS' EXHIBITION

This show, which closed two weeks ago at Earls Court, was underpublicized outside the electrical industry. This was a pity, for there was plenty to interest the architect. I thought it was a good, straightforward exhibition without frills, but including some first-class industrial design. For some reason a great deal of electrical equipment is well styled and my impression was that there was less bad-looking design at this exhibition than in almost any comparable industrial show. Flame-proof switchgear is at present a mass of nuts, bolts and heavy, ugly castings, but I imagine that experience and new techniques and materials will enable the appearance of such gear to be improved as time goes on.

Electric fires, never easy to design, have had a setback in the compulsory inclusion of a built-in guard. This makes even the simplest design look fussy. There are now several ranges of good-looking switches, plugs and fuse-boards. Manufacturers are at last concentrating on simplicity and interchangeability. For example, one firm was showing a new switch assembly which can be used in standardized switch boxes with from one to eight gangs.

Plastic switch plates and plugs are now almost universal for domestic use, black, white, cream and brown being the usual colours. I saw one firm exhibiting switch plates in pale grey. A very good idea. I believe other colours have been tried but discontinued as unsatisfactory.

Main switches and distribution boards need not be so large nor ugly now that some firms make neat, well-designed combined units. If architects put the whole lot in a cupboard I suppose appearance does not much matter, but I find the new ones look less frightening, and surely this will please the timid housewife faced with renewing a fuse. Nearly all the new equipment uses cartridge fuses; this saves fiddling with screwdrivers and fuse wire.

Look out for the next edition of this exhibition.

STEEL VERSUS REINFORCED CONCRETE IN FRANCE

An almost lyrical half-column in the *Birmingham Post* recently described the alleged opening of a battle between advocates of steel and reinforced concrete in France. A new hangar over 700 feet long has been built at Orly Airport. It is of steel and the roof is cantilevered so that there are no vertical supports between outside walls. France has always favoured reinforced concrete for both framed and large span construction. Steel framed buildings are comparatively rare. Now according to the *Birmingham Post* steel is all the rage. The Orleansville

The R.I.B.A. stand at the Third National Factory Equipment Exhibition held last week at Earls Court. It was designed by Kenneth Bayes, F.R.I.B.A. In addition to the display of models and photographs a pamphlet "The Architect and Industry" specially prepared for this exhibition was available free to visitors, together with copies of "Before You Build."

Mr. Nehru, who laid the foundation stone of the High Court Building, Chandigarh in 1953, has formally opened the new building. In his recent paper at the R.S.A., Mr. Maxwell Fry said. "In the High Court Corbusier's response to climatic conditions takes the form of a single high-arched roof, a parasol indeed, under which the building sits, protected further on the sun side by finely adjusted vertical and horizontal sun-breakers. It is a bold conception embodied in a design of great nobility and fine proportions."

earthquake is said to have had something to do with it. R.C. buildings there collapsed while those with steel frames survived. But surely no one is expecting earthquakes in metropolitan France? It seems more likely that increased French steel production is at the bottom of it all.

ENGLISH ELECTRIC SHOCK

I hear on very reliable authority that the English Electric Company does not like Mr. Gordon Tait's prizewinning design and propose to employ another architect. The Directors of the Company are said to like Mr. Tait's "interior." They have even spoken of approaching one of the other competitors. This makes nonsense of the highest quality. You choose two handfuls of well-known architects and a couple of well-known and distinguished ditto as assessors. Everyone works like mad for several weeks. Then the assessors do their job and in this instance everyone agrees that they have chosen the best scheme. A lot of money changed hands but this is, for the unsuccessful competitors, insufficient to offset the toil and tears. What happens? The promoters cast everyone aside crying "a plague on all your houses, now we will choose an architect." The English Electric Co. has, of course, a perfect right to do as it likes, but in begging to differ not only from the distinguished assessors but also from a large chunk of informed architectural opinion it is behaving in an unwise rather than a courageous manner.

I have heard no mention of Mr. Tait being asked to modify his design in any way. This would seem to have been the normal approach to the problem. I am extremely sorry for Mr. Tait although I realize that the winning of the prize seldom guarantees the commission to build the building.

Thus is another blow struck at the tottering structure of architectural competitions. The limited competition seemed to be becoming more firmly established, for, from the promoters' point of view, it gave at least the sense of sincerity so necessary to those about to spend large amounts of money. A long-haired æsthete with a bed-sitter office could not possibly win. Now we see the system in the dust. If the assessors' views are so lightly set aside why have an assessor at all in a limited competition? Let the client choose. This would save money, blushes and hard feelings. It would be bad for architecture but possibly not quite as bad as the disappearance of the competition system.

BENEVOLENT BUILDERS

In company with several hundred others I dined very well at the Dorchester last week on the occasion of the 95th Annual Dinner of the Builders Benevolent Institution. With the exception of Mr. Harvey G. Frost, President of the N.F.B.T.E., the speakers did not sparkle very brightly. On the other hand, the affairs of the B.B.I. sparkle no end. There are, it appears, insufficient needy Master Builders to absorb the Institution's Benevolence. Its scope is to be increased. Judging from the company present, the members of the B.B.I. had already increased the scope of their personal benevolence to the point of providing a square meal and a glass of sherbet for many a needy architect.

BUILDING CENTRE LUNCH

The Annual General Meeting and Annual Luncheon of the Building Centre was held at Claridges last week. The food was excellent (cuisine *très soignée* as they say in the French guide books). Sir Harold Emmerson said thank you very nicely on behalf of the guests and there were no other speeches. Mr. Duncan Sandys, M.o.H.L.G., and many other distinguished persons were present. This occasion is a model of its kind. I understand that there were several speeches at the A.G.M. which preceded the luncheon. The B.C. has had another record-breaking year and has celebrated the occasion in a smart Bulletin of facts, figures and photographs.

AUTOMATION

This is the latest word. Even if you do not like it you will be hearing it increasingly. It refers to the "automatic handling of materials and parts in, through and out of machines." The Institution of Production Engineers is to hold a Conference on the subject of "The Automatic Factory" in June. A number of top scientists and engineers are to speak. One of the first will be Sir Walter Puckey; his subject, "Automatic Factory—Dream or Nightmare."

ABNER

N.F.B.T.E. Representatives on Government Advisory Bodies and Joint Committees

The Council of the National Federation of Building Trades Employers has named the following members to represent the National Federation on Government Advisory Bodies, Joint Boards and Committees:—

Ministry of Works: National Consultative Council of the Building and Civil Engineering Industries—Messrs. W. H. Forsdike, Harvey G. Frost, and S. F. S. Hearder.

M.O.W. Advisory Council on Building and Civil Engineering Research and Development—Messrs. H. E. Comben, H. B. Kerr and S. F. S. Hearder.

M.O.W. Advisory Committee on Contractors' Plant—Messrs. J. Harrison and P. Smallwood.

M.O.W. Consultative Committee for the Stone Industry—Mr. A. N. Pictor.

M.O.W. Plant Hire Rates Committee—Messrs. J. Harrison and H. E. Hodgson.

Building Apprenticeship and Training Council—Messrs. J. Dearden, W. H. Forsdike, Harvey G. Frost, Ald. S. G. Gibson, Messrs. G. A. Hill, H. Payne, J. C. Robertson, F. M. Sleeman, G. O. Swayne, A. C. V. Telling and I. Ernest Jones.

Ministry of Labour and National Service: Building and Civil Engineering Labour Advisory Panel—Messrs. G. W. Buchanan, W. H. Forsdike, Harvey G. Frost and I. Ernest Joens.

National Savings Advisory Committee for the Building and Civil Engineering Industries—Sir Richard Costain, Messrs. L. A. Walden and C. G. Rowlands.

British Employers' Confederation—(Council) Messrs. W. H. Forsdike, Harvey G. Frost, W. Horsfall, G. W. Grosvenor, N. Longley and I. Ernest Jones; (*General Meeting*) Messrs. Harvey G. Frost, W. H. Forsdike, G. W. Grosvenor, N. Hannen, W. Horsfall, S. Hudson, H. B. Kerr, R. O. Lloyd, N. Longley, L. A. Walden, S. F. S. Hearder and I. Ernest Jones; (*Safety, Health and Welfare Committee*) Mr. L. A. Walden; (*Social Insurance and Employers' Liability Committee*) Mr. E. R. Bowyer; (*Industrial Education and Training Committee*) Mr. J. C. Robertson; (*Industrial Relations Committee*) Mr. N. Hannen; (*Employment and Manpower Committee*) Mr. G. W. Grosvenor; (*Taxation Committee*) Mr. H. H. Harper.

Building and Civil Engineering Holidays Scheme Management Limited—(*Board of Directors*) Messrs. G. W. Buchanan, W. H. Forsdike and F. Leslie Wallis; (*Members of the Company*) Messrs. W. F. Allen, G. W. Buchanan, W. H. Forsdike, W. F. Gibson, H. Leighton, R. O. Lloyd, H. Payne, J. Ian Robertson, J. R. R. Scull and F. Leslie Wallis.

Holidays with Pay Joint Industrial Board—Messrs. W. H. Forsdike, F. Leslie Wallis and I. Ernest Jones.

National Joint Council for the Building Industry—Messrs. W. H. Forsdike, G. W. Buchanan, W. E. Fishburn, F. Leslie Wallis, S. F. S. Hearder, I. Ernest Jones, P. Riley, Ald. F. W. Shepherd, Messrs. G. W. Grosvenor, C. P. Howells, J. Ian Robertson, L. A. Walden, Harvey G. Frost, S. Hudson, N. Hannen, R. O. Lloyd and J. B. Austin.

National Joint Apprenticeship Board—Messrs. W. H. Forsdike, J. Dearden, W. E. Fishburn, Harvey G. Frost, G. A. Hill, R. O. Lloyd, D. E. Woodbine Parish, H. Payne, J. C. Robertson, J. Ian Robertson, F. M. Sleeman and G. O. Swayne.

Architects, Quantity Surveyors and Builders Joint Consultative Committee—Messrs. G. W. Grosvenor, Harvey G. Frost, W. Horsfall, S. Hudson, L. A. Walden and R. S. Williams.

Joint Contracts Tribunal—Messrs. H. B. Kerr, N. Longley, Ald. F. W. Shepherd and Mr. R. S. Williams.

Architects' Registration Council—Mr. D. E. Woodbine Parish.

Joint Committee on Standard Method of Measurement.—Messrs. F. L. Brealy, R. E. I. Carlyle, S. T. Firth, K. C. F. Foster, W. W. Sapcote, L. A. Walden and R. H. Woolliams.

Liaison Committee with the Federation of Civil Engineering Contractors—Messrs. W. H. Forsdike, Harvey G. Frost, G. W. Grosvenor, N. Hannen, S. Hudson, N. Longley and W. Horsfall.

British Standards Institution—(*General Council*) Mr. Eric White; (*Building Divisional Council*) Messrs. H. E. Comben, J. C. Robertson and Eric White.

British Road Federation—Mr. N. Hannen.

Standing Committee for the Training of General Foremen—Messrs. D. E. Woodbine Parish, W. T. Booth, N. Hannen, B. T. Henman, F. S. Kennewell, G. I. Orchard, L. Statham and R. W. Whittington.

Employers' and General Foremen's National Joint Advisory Committee—Messrs. N. Hannen, W. T. Booth, W. Clark, B. T. Henman, J. Sidney James, G. I. Orchard, L. Statham, R. W. Whittington, D. E. Woodbine Parish and F. Wootton.

City and Guilds of London Institute Consultative Committee for the Building Industry—Messrs. Harvey G. Frost and D. E. Woodbine Parish.

Building Industries National Council—Messrs. G. W. Buchanan, W. H. Forsdike, W. Horsfall, J. Ian Robertson, S. F. S. Hearder and I. Ernest Jones.

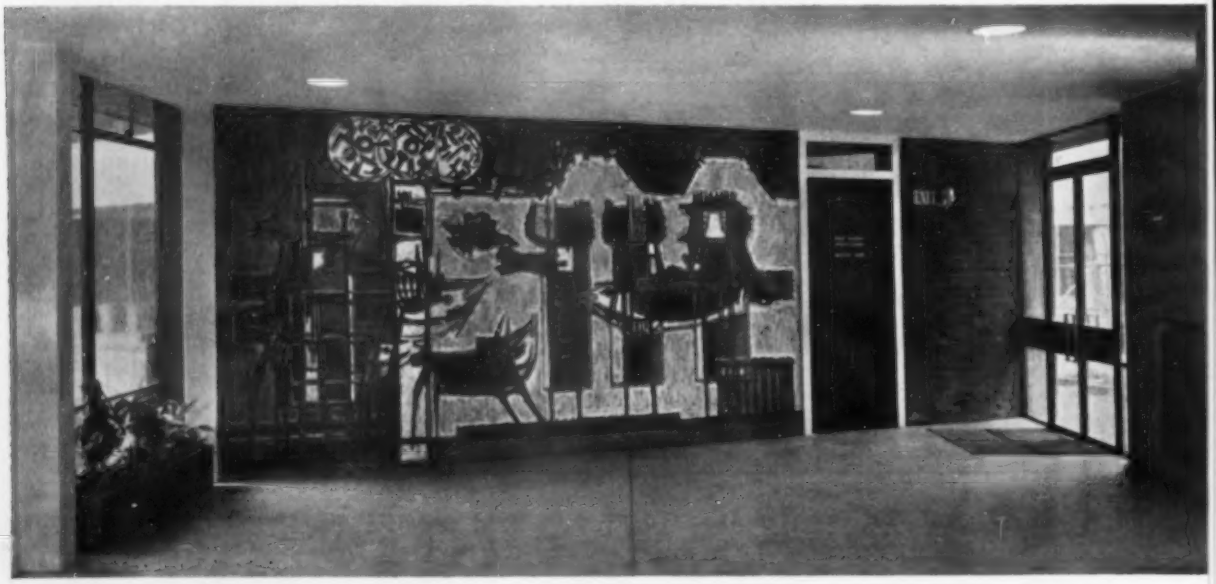
Timber Development Association Council—Mr. G. W. Grosvenor.

Liaison Committee with the Building Research Station—Messrs. H. E. Comben, N. S. Farrow, Ald. F. W. Shepherd, Messrs. P. Smallwood and Eric White.

Plasterers National Joint Advisory Committee—Mr. T. G. Bowler, Ald. A. E. Hall, Messrs. E. T. Roberts, A. C. V. Telling, F. Pollock and C. G. Rowlands.

Joint Sub-Committee on Incentives Schemes—Messrs. E. R. Bowyer, W. E. Fishburn, S. Hudson, R. O. Lloyd and J. Ian Robertson.

Building Advisory Service Committee of Management—Messrs. G. W. Grosvenor, S. Hudson and N. Longley.



Mural by Stefan Knapp in the main entrance hall of Hallfield Primary School, Architects: Drake & Lasdun. The school was opened by Lord Samuel, G.C.B., G.B.E., a Freeman of the Metropolitan Borough of Paddington in which the school is situated.
The elements of the composition are human figures, animals, fish, tree, grass etc. The theme of the two groups of figures is the passing and sharing of knowledge and experience. The composition and colour of the mural reflects the building itself, its surroundings and its inhabitants: thus human figures are painted at adult eye level, large animals at junior eye level and small animals at infant eye level.

In the central area of London Airport, the control building and the South-East face, passenger building (pictured above) are nearly complete. The architect is Frederick Gibberd, and the general contractors are Taylor Woodrow Construction Ltd., foundations and builders work; Redpath, Brown and Co., steelwork. Details will be published in a future Issue.

LAW REPORT

THE Court of Appeal held last week that building contractors' huts on a building site are rateable.

Two appeals by the London County Council against Lands Tribunal decisions allowing two sites to be added to valuation lists were accordingly dismissed, with costs. Leave to appeal to the House of Lords was given.

The sites were respectively Walker Street School Site, Stepney, and at Woodberry Down Estate, Stoke Newington, both owned by the L.C.C. The former was intended for the erection of a school and the latter for the building of an old people's home. While work was in progress the sites were occupied by huts belonging to the respective contractors, and were used for storage and other purposes.

The L.C.C., appealing as owners of the land, argued that the Lands Tribunal was wrong in holding that the hereditament was capable of beneficial occupation, or that the occupation was sufficiently permanent to give rise to rateable occupation.

Giving judgment on the first appeal, Lord Justice Jenkins said that the structures concerned were temporary wooden buildings of the kind commonly found on sites while building operations were going on. In this case they had long been removed and the school had been completed. They were brought on the site about Jan., 1950, and were removed between June and Sept., 1951. Nevertheless, the question was one of some general importance to building owners and contractors, probably of more importance to the former because the contractors could pass on liability for rates as part of the cost of works.

His lordship described the structures as a wooden sectional hut 9ft by 12ft 9in used as a foremen's and timekeepers' office (gross value £4); a cement store on a cement floor and partly of corrugated iron, 9ft by 14ft (gross value £5); canteen and store 14ft 10in by 30ft (gross value £17); and a plumbers' store, 8ft by 12ft (gross value £3). The total gross value was accordingly £29 and net rateable value £20.

The contract provided that the architect had various rights of entry and access to the contractors' huts and the L.C.C. reserved the right to occupy the site for its own purposes whether work was in progress or not. The specification attached to the contract allowed the contractors to use the site for storage and other purposes, and the contractors had to provide sheds and messrooms necessary for the proper execution of their works. There was also a provision for the contract to be completed in 12 months.

The court had to decide on those facts, continued Lord Justice Jenkins, whether the four temporary structures were in rateable occupation. Four pre-requisites of such occupation, as approved by the Court of Appeal, were: (1) there must be possession by the alleged occupiers; (2) possession must be exclusive for the particular purposes of the occupier; (3) possession must be of some use, value or benefit to the possessor; (4) possession must not be for too transient a period.

The valuation authority submitted that those four conditions had been satisfied, but the L.C.C. maintained that the use of the structures did not amount to rateable occupation because of its special and transient character. They said that the contractors' occupation was not exclusive and that they were mere licensees of building owners, the structures being mere episodes in the carrying out of the contract. They also said that the structures, being temporary, could not be part of the hereditament so as to make occupation rateable.

Lord Justice Jenkins held that the four pre-requisites for rateable occupation had all been satisfied. As to exclusive possession, the rights of the L.C.C., the architect and the L.C.C.'s clerk of the works were less substantial than those which the Court of Appeal had already held not to affect exclusive occupation. The period of occupation also was of sufficient degree of permanence.

Discussing the contention that the huts were chattels and not part of the hereditament, his lordship said it would appear that the huts stood on the ground by their own weight without any physical attachment to the soil. That was not, however, conclusive that the huts retained their character as chattels. They were not independent chattels in the sense that they could be brought on the site in the condition in which they were when erected. The parts of the huts ceased to be chattels when they were assembled and they became part of the hereditament for rating purposes as long as they stood on the site. He would dismiss the appeal.

The Master of the Rolls and Lord Justice Romer agreed, and both appeals were accordingly dismissed.

N.C.B.M.P.

The Annual General Meeting of the National Council of Building Material Producers was held at the Connaught Rooms, London, on Thursday, March 24, 1955. The following Office Bearers were elected: *President*, Sir Harry Pilkington; *Vice-Presidents*, Mr. F. C. Braby and Mr. H. E. Peirce; *Hon. Treasurer*, Mr. J. L. McConnell.

MEN'S WEAR SHOP IN LEICESTER for Austin Reed

architects:
WESTWOOD, SONS & HARRISON

chief assistant:
Noel Brandon-Jones

The front. Fascia, stallriser and lobby floor are unstopped walnut travertine; the sashes, blind box, lighting box and entrance doors are teak. The letters are wood with gold leaf applied to the front and terra cotta paint to the sides

BEFORE alterations were carried out, the premises consisted of two private houses. The owners carried out the structural work including taking out the party wall and let Messrs. Austin Reed the central portion on a long lease. The total showroom area on two floors is approximately 2,950 square feet.

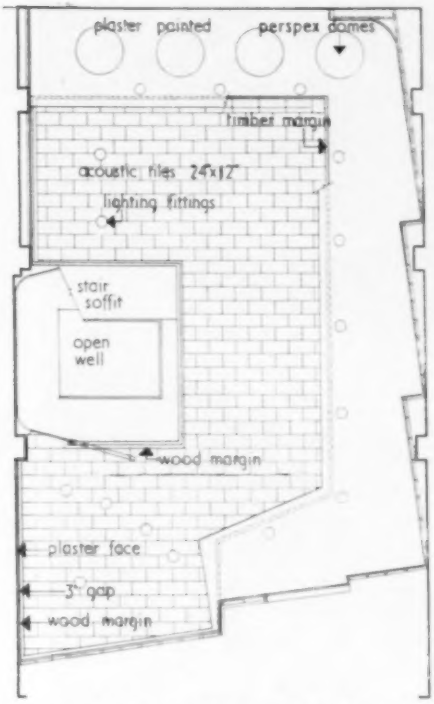
The ground floor has been planned for the sale of ties, shirts, pyjamas, etc., and partly for a shoe department. The first floor is for clothing and sportswear and the second floor is used for a cash office, staff canteen, tailors' workroom and clothing stock room. Lavatories and further stock space are provided for in a ground floor extension at the rear of the premises.

The clients requested that whilst they wished the shopfront and fittings, etc., to be designed in a contemporary style they did not want any chance of the scheme dating, as it would be quite uneconomic to refit the premises in a period of less than 15 years. For this reason it was necessary to choose all materials not only for their initial appearance but also for their ability to remain in perfect order, with the minimum of maintenance, for a long while. These requirements imposed great restraint on the designers and meant discarding many ideas that would have been perfectly suitable for an exhibition or shop with a short life. In spite of this a lively appearance has been achieved. With showrooms on two floors it was considered essential to make the staircase as attractive as possible and the well of a size that would give customers a glimpse of the first floor from below. To lead the eye upwards small illuminated showcases have been incorporated in the glazed screen between the shoe department and the stair.

The whole shop has been so designed that customers have direct access to the goods and feel they may go round behind the counters to select what they require from the fittings. There is no glass in front of the goods, but at night canvas blinds are pulled down to

[Continued on page 407

The entrance and glazed screen. Door handle is made of rosewood with bronze monogram and ivory vitreous enamelled background



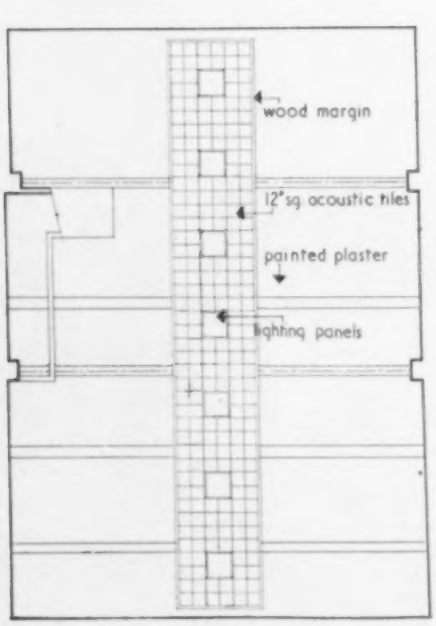
GROUND FLOOR LIGHTING
SCALE: 1" = 12FT

Part of the ground floor showing the island tie display fitting on the extreme left

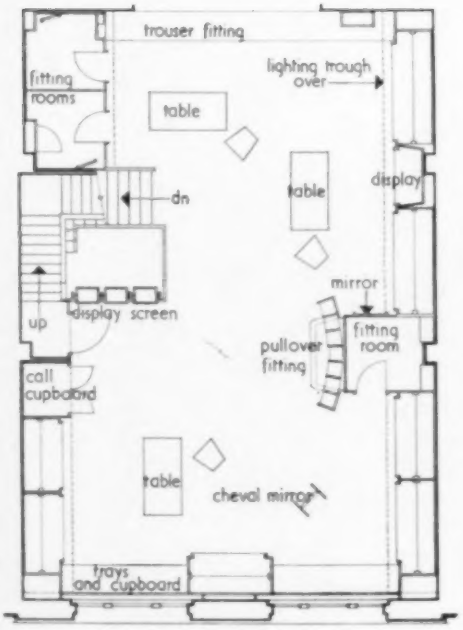
The stairs are reinforced concrete with the risers faced in walnut and the treads covered with Maize marble Korkoid. Part of the panelling is cork and the rest strip walnut. The balusters are mild steel stove enamelled black and grey

GROUND FLOOR PLAN

Clothing department, first floor



FIRST FLOOR PLAN AND LIGHTING PLAN



Austin Reed Shop, Leicester

Continued from p. 404

prevent soiling by dust whilst cleaning is being carried out. A free standing fitting in the centre of the ground floor enables customers to see a vast selection of ties without the help of a salesman. After closing time the special lights over this fitting are left on thus making the shop look alive and attractive.

False ceilings at varying heights have been incorporated in the design, not only to obscure the existing and new beams that were required to support the centre portion of the floor, but also to give variety and a more intimate feeling to the interior.

The main show windows have been set at an angle to the street frontage in order that they may be more easily seen when being approached. The entrance lobby has been made generous to encourage people to look into the shop, but a completely open front was not desired. At night the fascia is illuminated by a projecting lighting box which is combined with a flower box above. The sunblinds are electrically operated by a push button within the shop and have a continuous blind lath 29ft long. Although this is rather an expensive piece of equipment, it does mean that the blind may be put out without any trouble if the weather is changeable. With the ordinary pole-operated blind, assistants must think twice about altering the blind for a sudden bright period of sunshine, thus causing, over the years, considerable damage to goods by fading.

Materials

The front is faced with walnut travertine left unstopped with a Bon Accord black granite cove next to the pavement. The sashes, blind box and lighting trough are teak. The upper portion of the windows is glazed with white plyglass painted on the back and the backs of the windows are faced with bleached mahogany. The letters are wood with gold leaf on the face and terra-cotta painted sides. The badge on the fascia is teak with gilt incised design.

On the ground floor all the fittings are walnut with the exception of the interior of display recesses which are sycamore. The walls above the fittings are painted pinky white. The lower ceiling is plaster painted light steel grey and the upper ceiling is covered with acoustic tiles painted pinky white. The soffit of the stair and plasterwork around the stairwell are painted terra-cotta. The floor is maize marble Korkoid. The staircase is panelled with strip walnut and partially with cork. Balusters are mild steel enamelled black and grey and the handrail is walnut.

On the first floor the fittings are carried out in English elm with Wych elm veneer. The walls above the fittings and the plaster ceiling are painted pinky white and the acoustic tiling in the centre light grey. The carpet is saxe-blue with navy and white spots. Chairs and stools are upholstered in a blue leather.

General Contractors: Bowles & Son, Ltd.

Carpets & Curtains: Heals Contracts Ltd. *Cash System:* Lamson Engineering Co. Ltd. *Ironmongery:* Yannedis & Co. Ltd. *Light Fittings:* Troughton & Young (Lighting) Ltd. *Marble:* Fenning & Co. Ltd. *Shopfitters:* George Parnall & Co. Ltd. *Sunblinds:* The Artistic Blind Company.

In the clothing department on the first floor, the fittings are in English elm and Wych elm veneer. The lower portion of the ceiling is faced with acoustic tiles painted a light steel grey with a wooden edging. The main ceiling is painted pinky white with a very dark night blue to the vertical portion between the high and low portions. The carpet is a saxe-blue with navy and white spots

The shoe department showing the low display screen dividing it from the rest of the ground floor. The two recessed displays are lined with red leather

View looking from the staircase landing towards the main entrance

THREE-STOREY HOUSES, HAMPSTEAD

architects: DINERMAN, DAVISON & PARTNERS

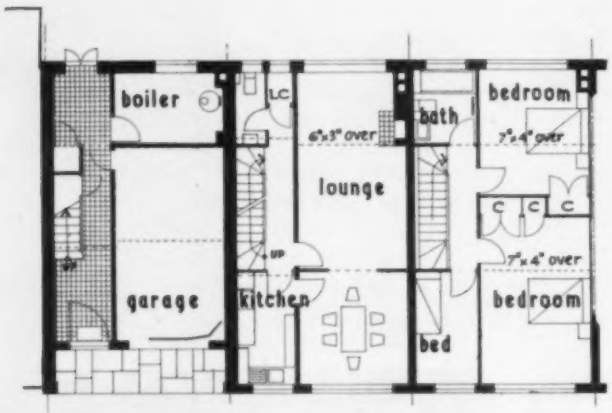
Structural Engineer: A. BEEDLE

THE building is erected on a site previously occupied by a derelict early Victorian building and its stables. The construction was started in the winter of 1953 and finished in autumn 1954.

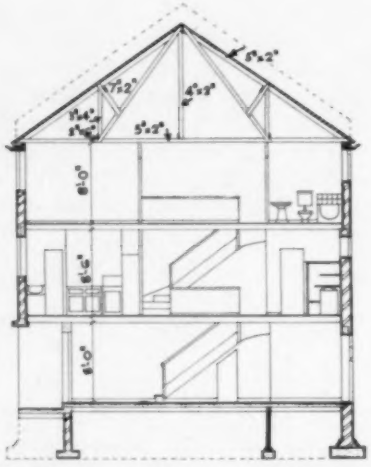
The development consists of seven three-storey houses having the accommodation shown on the plans.

Construction

The construction is in traditional brick work 14in up to first floor ceiling level and 11in cavity wall above. These are strip foundations and special sulphate-resisting cement had to be used owing to the chemical composition of the clay. The aprons to the windows to the front elevations are clad in tongued-and-grooved maranti match boarding. The windows are standard " Z " range metal sashes. The roofs are built on TDA type trusses and covered in single lap Marley tiles. The over-hang over the ground floor is a continuous reinforced concrete boot lintol. Hardwood strip flooring has been used to the first floor rooms. The porches have been tiled in exterior quality coloured tiles, different shades having been used for each house. The front doors and garage doors are of waxed polished maranti. Garage doors are of the up-and-over type. All houses are fully centrally heated.



GROUND, FIRST AND SECOND FLOORS. SCALE: 1in = 16ft



SECTION

Quantity Surveyor:

D. A. Degerdon, A.R.I.C.S., A.I. Arb.

General Contractors:

Taylor Woodrow Construction, Ltd.

Sub-contractors:

Central Heating:
Taylor Woodrow Construction, Ltd.

Decorations:
J. H. Kenyon & Sons, Ltd.

Electrical Installation:
W. G. Jacques.

External Tiles:
Carter & Co. (London), Ltd.

Gas Installation:
North Thames Gas Board.

Gutters:
Finlock Gutters, Ltd.

Roof Tiles:
Marley Tile Co., Ltd.

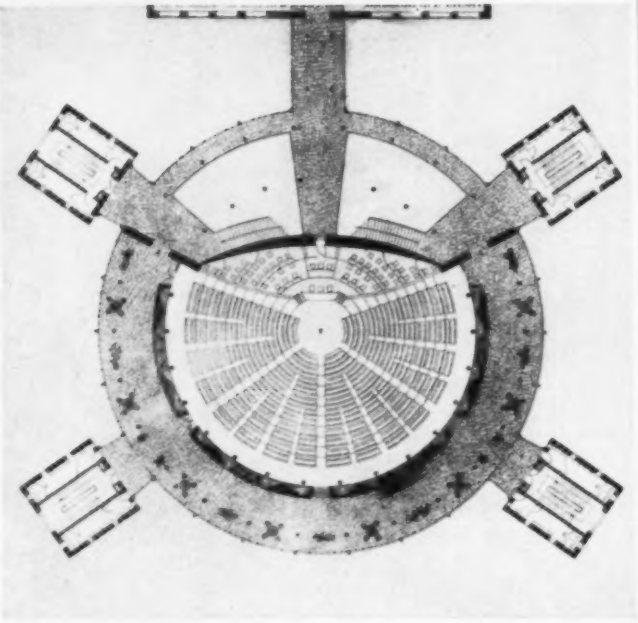
Steel Windows:
Williams & Williams, Ltd.

Up-and-Over Garage Doors:
Acrow (Engineers), Ltd.

The timber cladding is Maranti matchboarding. Doors are wax polished Maranti.

ROTUNDA AND HALL, HESSISCHER RUNDFUNK, Frankfurt-on-Main

ARCHITECT:
GERHARD WEBER, B.D.A.



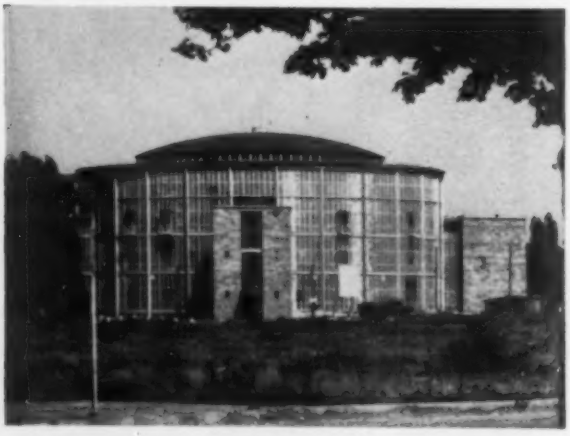
WORK on the reconstruction of the Former Educational Academy for use of a German Federal Parliament was commenced in June 1949 on the basis of the plans drawn up by Gustav Schäfer. Apart from the various alterations and additions made, the most outstanding and characteristic feature of the building was the erection of the circular general assembly building.

Building operations were stopped in the beginning of 1950 since it had been decided that the seat of the Federal Government should be in Bonn.

Later on the Hessischer Rundfunk acquired the site and the architect Gustav Schäfer was asked to prepare plans for the structural alterations required to make the building suitable for broadcasting.

The stands in the general assembly hall had already been erected in the unfinished building and were pulled down, the glass-panelled rotunda being divided into five storeys by inserting new floors. The vast entrance hall in Auer limestone and the staircases lined with Neckar sandstone remained practically unaltered in design.

The Rotunda



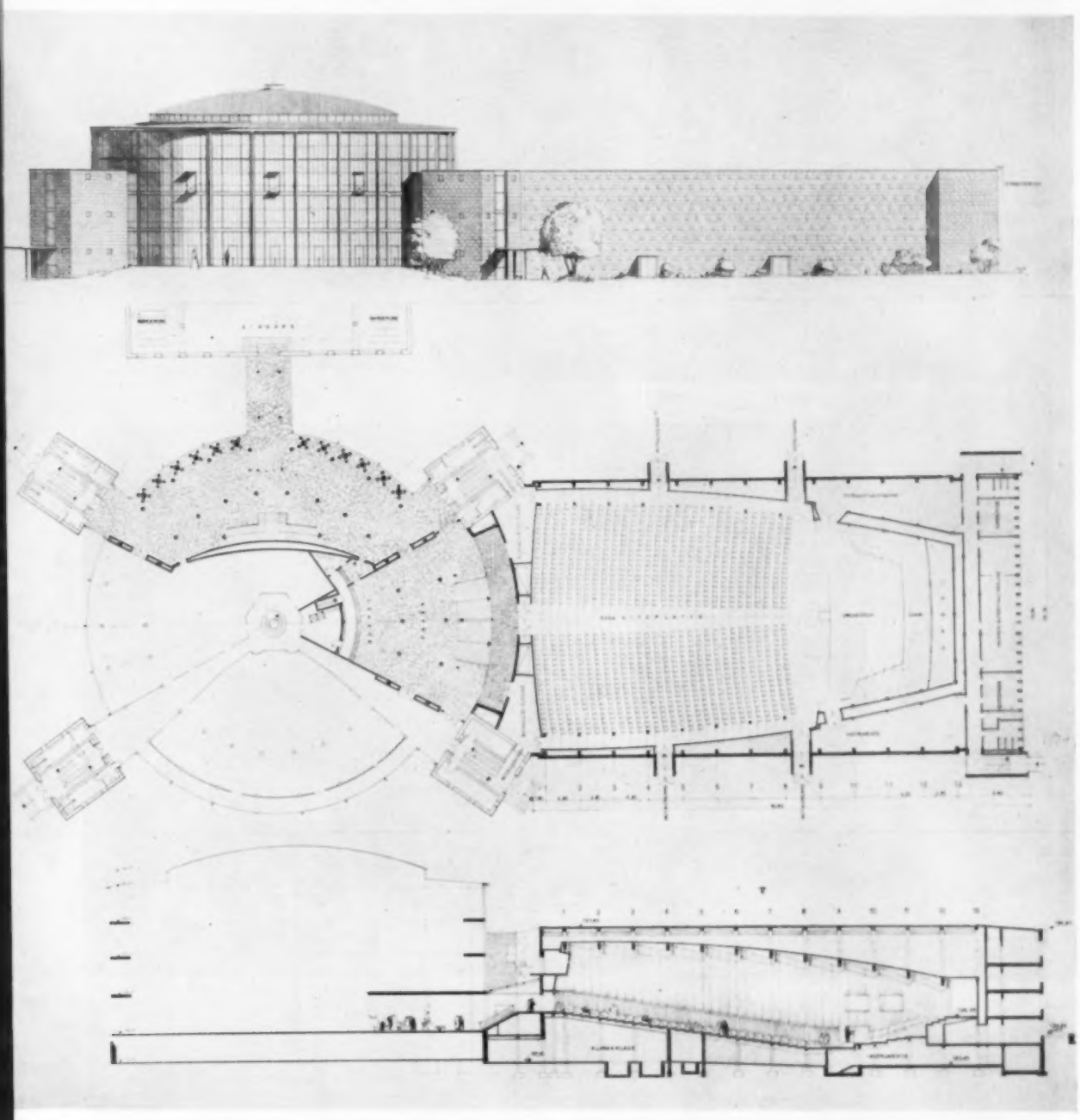
After competition—limited to five architects—the erection of the new concert hall was entrusted to Gerhard Weber, and on the death of Gustav Schäfer he was also given the task of building the broadcasting studios in the rotunda.

Before the building could be adapted to the needs of broadcasting, many structural alterations had to be undertaken for architectural and acoustical reasons. The foundations were strengthened and—as far as was possible—the loads on the floors were relieved by additional supports.

All those rooms where sound insulation was not of prime importance were located, in principle, along the outer walls, thus the whole of the interior of the building was protected by these rooms, and also by the intervening corridors, against external noise, and was free for use as broadcasting studios.

For acoustical reasons, all the rooms were insulated from one another to a greater or lesser degree. Since steel is an excellent transmitter of sound, the tubular steel supports were enclosed in a plaster casing, the cavity between column and casing then being packed with rock wool. The rooms designed for broadcasting purposes were segregated from one another.

The walls consist of two leaves. The fibrous plaster ceilings (Rabitz ceilings) are suspended on resilient wire. The floors are either floated on rock wool slabs, or they are laid on resiliently supported joists and the cavities packed with rock wool and covered with fibre board. Communicating doors are soundproofed to a greater or lesser degree, depending on the individual requirements, and in some cases they are designed as double doors. Visual com-



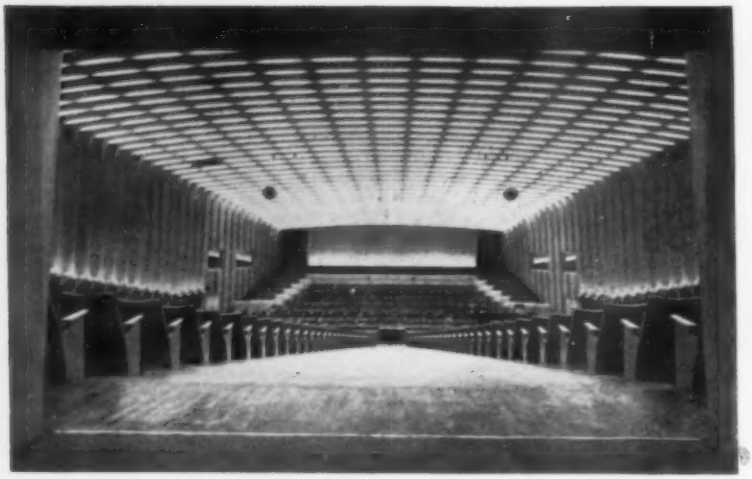
munication within the studio group is provided by control windows consisting of 3 panes of glass, each 8-15 mm thick. The reveals of the windows have sound-absorbent treatment.

The inner rooms not in communication with the external atmosphere are supplied with purified, washed, preheated or cooled air by air-conditioning plant. The duct system with its many ramifications required for this purpose is mainly located in the corridors above independent ceilings. The ducts are of large dimensions: they are wrapped in insulating material with a muslin covering and are lined internally with rock wool slabs, in order to exclude the noise of the plant and of air flow in the ducts from the studios.

All machinery producing noise, lifts and steel runways for the spotlights in the television studio are isolated from the structure by means of rubber pads.

The interior surfaces of each room are of absorbent or reflecting materials in accordance with the acoustical requirements, and in some places have a considerable depth of relief for the sake of sound diffusion. For architectural reasons this treatment is concealed behind a wooden lining so designed as to be transparent to sound.

For radio plays, specially treated rooms are available for the production of various acoustical effects. Thus, there is an " echo " room, a " reverberation " room—both having bare, smooth walls and ceilings—and a " dead " room in which walls and ceiling are



Hessischer Rundfunk

Planning and Supervision of Work :
Gerhard Weber, Architect, B.D.A.

Collaborators :

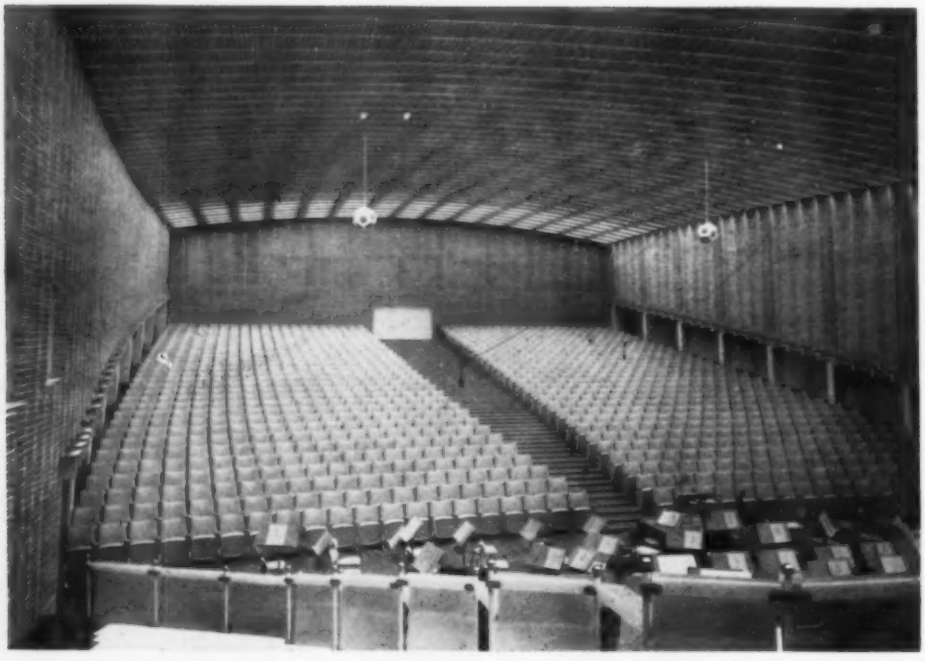
Planning :
Arthur Wellman, Engineer, in charge of Planning.
Hellmut Ebert, Architect
Hansgeorg Tebarth, Engineer

Supervision of work :
Axel Fischer, Engineer
Heinz Schäfer, Architect

Acoustics :
Karlhans Weisse

Planning nnd Supervision of the Electro-technical and Broadcasting Equipment :
Technical Department of the Hessischer Rundfunk, Dr. Franz Miseré and Herbert Schreiber, Chief Engineer

The auditorium and foyer



rendered completely sound-absorbent by being lined with wedges of rock wool 30 cm. deep.

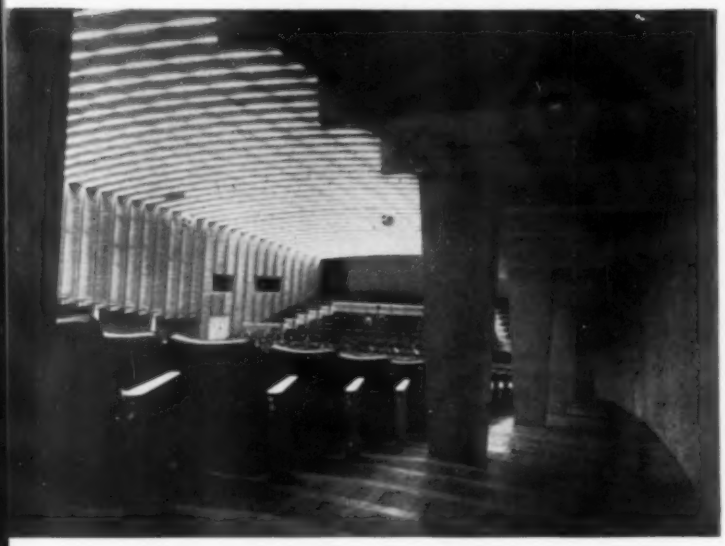
The concert hall has a double skin. The inner hall forms a structurally independent unit inside the external shell which is visible from the outside. The two shells are separated by a void which is accessible and accommodates the services and ventilation ducts. The inner hall is therefore provided with maximum insulation against the penetration of noises from outside.

The entrances and emergency exits open into sound-absorbing lobbies and are fitted with sound-proof doors. The roof is provided with additional sound-proofing in the form of a layer of 4 cm. thick rock wool slabs.

The concert hall is 50 metres long, between 23 and 32 metres wide and up to 10.50 metres high. It seats an audience of 1,200: the volume per seat is 10 cu. m.

The tiers of seats rise in uniform steps, giving an unobstructed view of the orchestra from every seat. The distance between the rows is 1.05 metres, so that there is no need for a person already seated to stand up to allow other members of the audience to pass. The seats are made of ash, heavily upholstered and covered with a light green perforated plastic material.

Access is by means of two side gangways and a wide central



gangway, which was demanded by the owners to meet the special requirements of radio performances.

The orchestra platform is provided with fixed and movable tiers and accommodates space for about 100 players and 200 singers. The partition between the orchestra and the choir platform is formed of panes of yellow plexiglass, the shape and inclination of which were acoustically determined.

Two lifts in front of the orchestra platform are used for raising the instruments from the basement and can also be used to enlarge the orchestra platform when extra space is needed. On the rear wall behind the orchestra are large, movable panels, which enclose the space for the organ which is to be built later.

The visible skin of the hall is in the very light wood of the Japanese ash. The floor was covered with oak strip. The internal treatment consists of inverted U-shaped ribs about 1 metre apart and about 1.50 metres from the walls and somewhat less from the ceiling. These ribs are connected by about 85,000 cylindrical rods. The ribs on the ceiling are used to carry the lighting, of about 780 fluorescent tubes.

In the vertical side channels are the fresh air inlets. The used air is withdrawn mainly through the risers of the gangway steps.

At the end of the hall are situated on four floors the tuning rooms, cloakrooms and waiting-rooms for the musicians and choir, in addition to the various radio departments.

The Acoustics in the Large Studio

The acoustics of every concert hall must be such that the orchestra sounds warm and full in tone, while the individual instruments, whether playing " piano " or " fortissimo " must be heard clearly and without distortion throughout the room. Thus the room itself becomes a " large musical instrument."

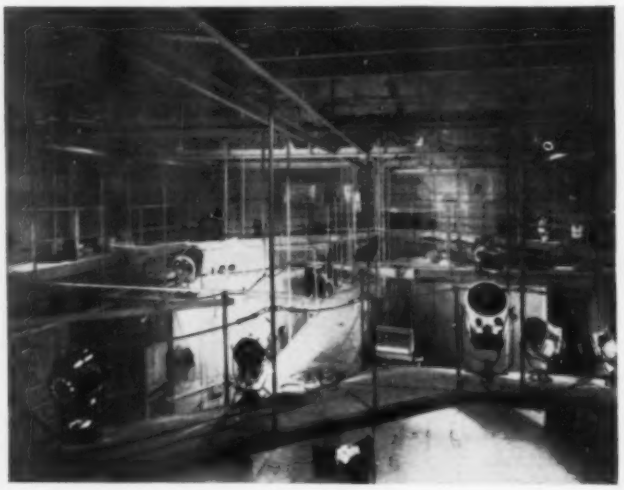
It is well known that the acoustical quality of a room is determined mainly by its reverberation time (the time taken for the decay of deep, middle and high notes). This time can be controlled with relatively great accuracy by the choice and application of the materials of which the interior of the room is constructed. On

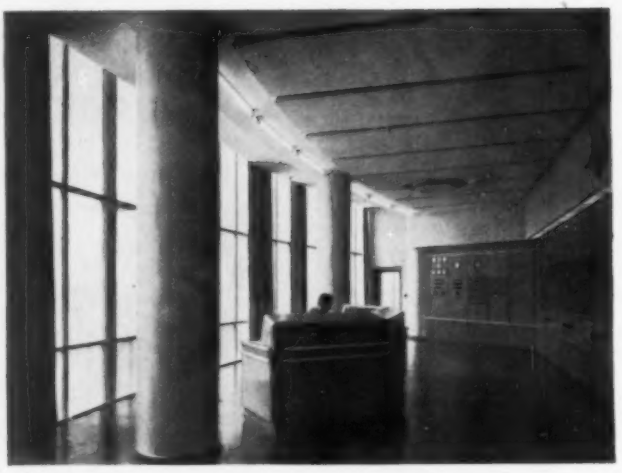
Hessischer Rundfunk

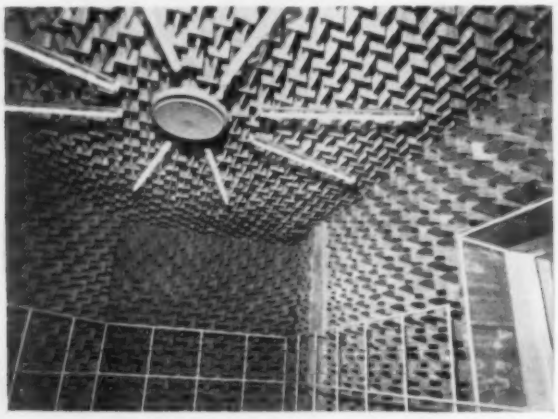
the other hand, there has so far been no " recipe " for the acoustically best shape for a room. Attempts to deduce rules for length, breadth and height from the proportions of acoustically successful rooms have often failed.

For those reasons and also in view of the fact that the room was to be used both for concerts and broadcasts, new lines had to be followed in respect of both the architectural and acoustic design. In close collaboration between the architect Gerhard Weber and the acoustical engineer Karlhans Weisse a hall was designed having a length of 50 metres, a width of between 23 and 32 metres and a height of only 7 to 11 metres. From a geometrical point of view it was expected that a room having these dimensions would, with the use of new materials and designs, provide conditions in respect of direct sound and first reflections comparable with those found in rooms acknowledged to be acoustically good. Judged by the preliminary very favourable reports already available, it is claimed that this object has been achieved.

The concrete ceiling beams produce the required rhythmic sound reflections. For visual reasons, they were hidden from the view of the audience by means of a sound-transparent " visible skin " made up of cylindrical rods of decorative wood combined with ceiling strip lighting. The ceiling which is curved slightly in both the longitudinal and transverse directions gives the audience and the microphone the impression—on the Huygens principle—of a ceiling reflecting surface some 3 to 5 metres higher (more distant). With the exception of a few square metres of perforated plywood, no sound-absorbent treatment has been given to the ceiling. The perforated plywood surfaces are used for the distribution of fresh air for the orchestra, and at the same time act as sound absorbers for the low notes and as reflectors for the high notes. The whole ceiling, which is unplastered, and the surfaces of the beams are simply covered with a smooth finish paint which seals the pores in the material.





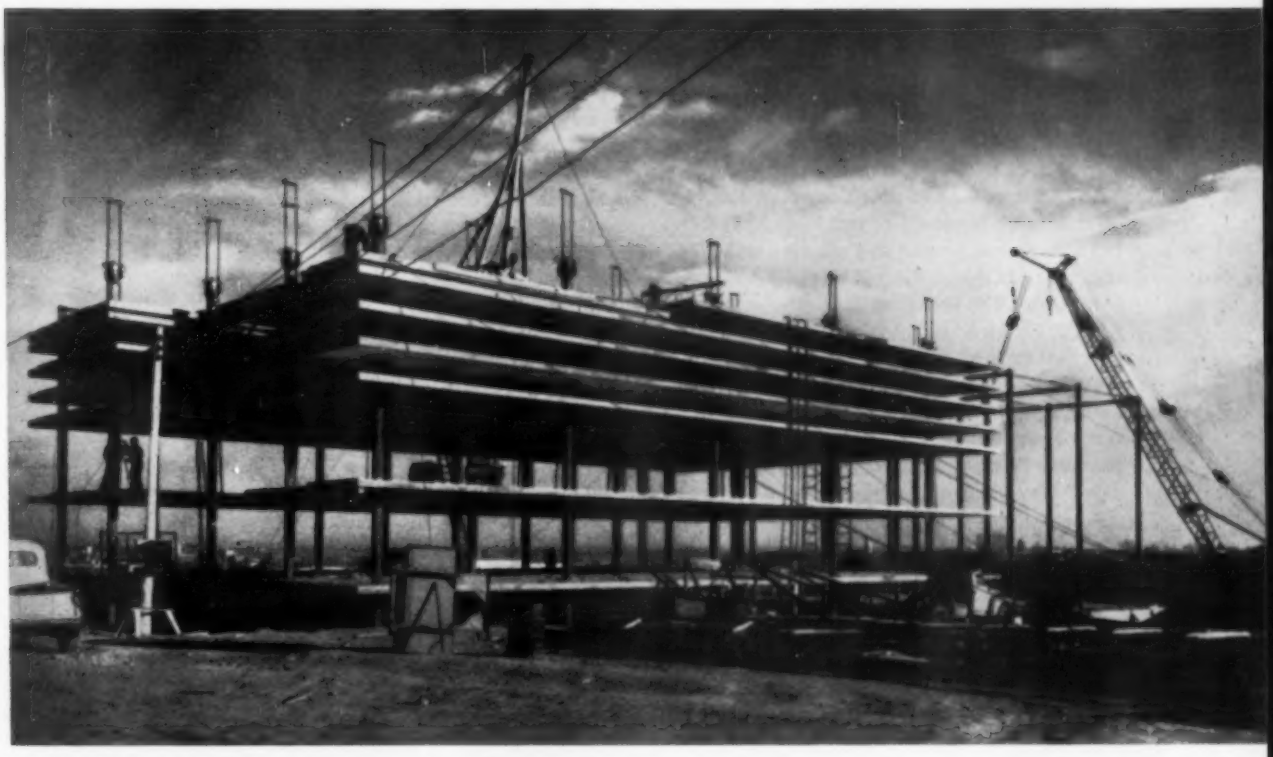


The control of the reverberation times is effected by means of " fixed " and " variable " sound absorbers. The fixed sound absorbers are the seats, all the visible wall coverings as well as those hidden behind the rods, inlet and outlet grilles and ducts, and smooth ceiling surfaces and the floor. In addition to these absorbents there are special " variable " sound-absorbing elements arranged over the side gangways of the auditorium. They are concealed from the audience by the same (sound-transparent) visible skin, which also hides the ceiling beams.

The 48 sound-absorbing elements used consist of panels from 4 to 7 metres high and about 1 metre wide, suspended from the ceiling on sturdy pivots so that they are movable. They possess a " hard " side and a " soft " side, either of which can be turned towards the hall as desired. In addition they can be moved to and fro as a whole perpendicular to the middle axis of the hall for a distance of about 1.50 metres, and can be inclined.

Rotation of these elements modifies the reverberation time; pushing them to and fro changes the colour of the tone. The optimum is established by experiment and listening tests and determined by measurements. Whatever changes are made to the sound-absorbing elements, the visible skin of the hall remains unaltered.

The variable sound-absorbing elements not only allow fine adjustment of the reverberation times with a degree of accuracy hitherto unknown. In co-operation with musicians and conductors they can also be used to obtain new knowledge of general validity and evidence for determining the " ideal shape of room."



Roof slab and sixth, fifth and fourth floors parked in temporary location. First, second and third floor slabs in final locations. Upper lift of columns to be erected

Lift Slab Construction. Calgary. Canada

THE residential apartments, Rideau Towers in Calgary, Alberta, Canada, consist of six buildings all of which are exactly similar, but three are handed. The main dimensions of each block are 156ft × 63ft in plan and each is 64ft high, accommodating seven storeys in all. Each of the six blocks contains 56 apartments giving a total of 336 apartments, and garage space is given for 300 cars.

The special interest of these buildings is that they are the tallest at present to be constructed using lift slab construction, and this is the first occasion on which two separate lifts with welded connections have been employed.

By this system all the floors are cast on the ground and they are then jacked into place

In Calgary as in most of the lift slab jobs now being done in the United States and in Canada, the floors are designed as flat plates without column strips or drop panels. In other words, neither the top surface of the slab nor the bottom surface of the slab has any projections. The floors in Calgary are 8in thick. The

Rideau Towers

columns are 9in to 8in square made up of two 8in × 8in × 1in to ½in angles welded toe-to-toe along their length.

The columns are erected first on prepared foundations. There are no steel beams or concrete beams, but in order to minimize the unsupported length of the columns angle bracing is provided at the top of the columns only, and this is removed subsequently.

Around each column a specially made cast steel collar is provided, one for each floor to be poured. These collars are placed around the columns before erection and each one is incorporated with the concrete for each floor.

Lift Slab Construction, Calgary

The ground floor is poured directly on the basement floor or in this case on a 2in blinding course of concrete which is machine trowelled to give a very smooth surface. The surface of the blinding is first brushed with a liquid wax and then dusted with a foundry dusting powder. The reinforcement is then placed on the floor and all conduit work is placed at this stage. The concrete for the floor is then poured and machine trowelled. This in turn is brushed with a liquid wax and the dusting powder is applied. The first floor is then poured on the ground floor. There is no physical division with any other material such as building paper. Concrete is poured directly on hardened concrete. This sequence is continued until in the case of the Calgary building six floors and a roof are poured. The cycle between finishing one floor and finishing the floor next above need only be four days. No time is necessary for curing. The top floor, in this case the roof slab, was allowed to reach the required strength. This took ten days and then the jacks were set up over each column. These were hydraulically operated and through special screwed rods passing through the jack and into the collars at each column the jacking is then commenced and the slabs are lifted to their required position. The roof slab is lifted first, then the sixth floor and fifth floor and so on.

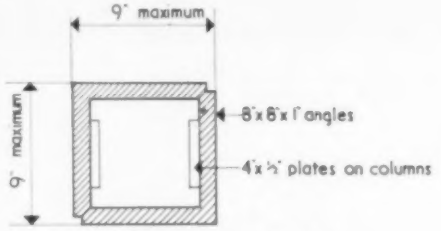
If necessary bricks, window frames, door frames and general building supplies and convectors, etc., can be lifted with each floor. This was not done at Calgary, but could be done if required.

In the case of Rideau Towers these blocks were the highest ever attempted by the lift slab method of construction. The equipment is normally limited to lifting on columns 42ft high and there is in addition a factor that if the columns were 64ft high obviously the crippling load for a given section of column would be very much lower. It was decided to erect the columns in two lifts, first 42ft and then 24ft,* and this was done by welding on the upper length to the lower length when the ground, first and second floors were fixed in position and the third fourth, fifth and roof were temporarily parked at the top of the 42ft column. The slabs which were temporarily parked were then lifted to their final positions.

Examination of the photographs will show that the floors were poured in two sections. This is because the limit of the number of jacks which can be controlled suitably by a single hydraulic pumping system is 18 jacks, and since there is a jack to each column this means that the equipment is most suitable for lifting on 18 columns at a time. The gaps between sections are deliberately left and in the case of Rideau Towers were 3ft and these were poured *in situ* when the slabs were in their final locations.

When the slabs are in their final positions the collars are welded at the top and the bottom to the steel columns, and steel plates to form seats for the floors are welded on to the columns.

This form of construction was chosen because it possesses the following advantages. First and foremost

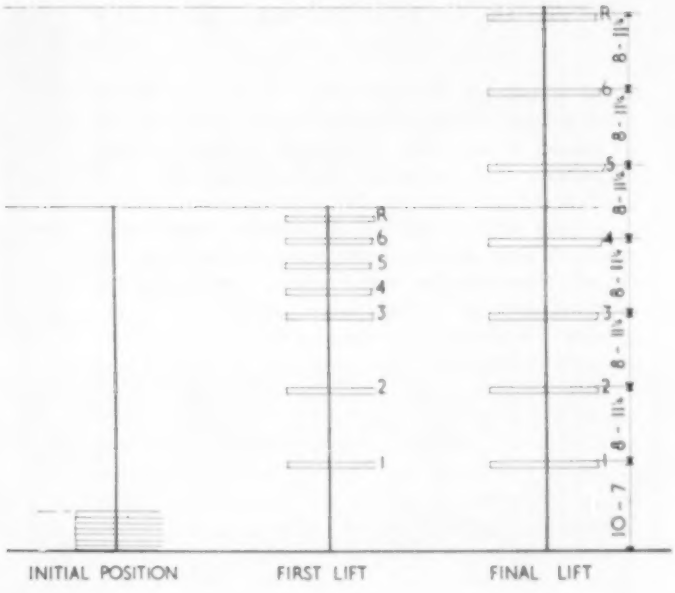


TYPICAL COLUMN SECTION

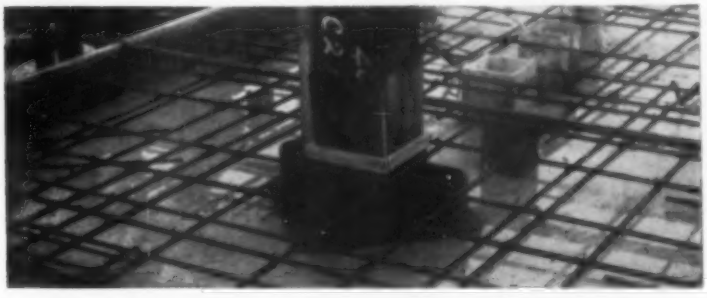
The two pictures below show, on the right, light timber framework for winter protection and, on the left, concrete being delivered through the winter protection after completion

** The column lengths are precisely 42ft 5in and 23ft 10in. One foot of the lower length is below basement level and approximately one foot is cut off from the top lift of columns on completion of lifting.*

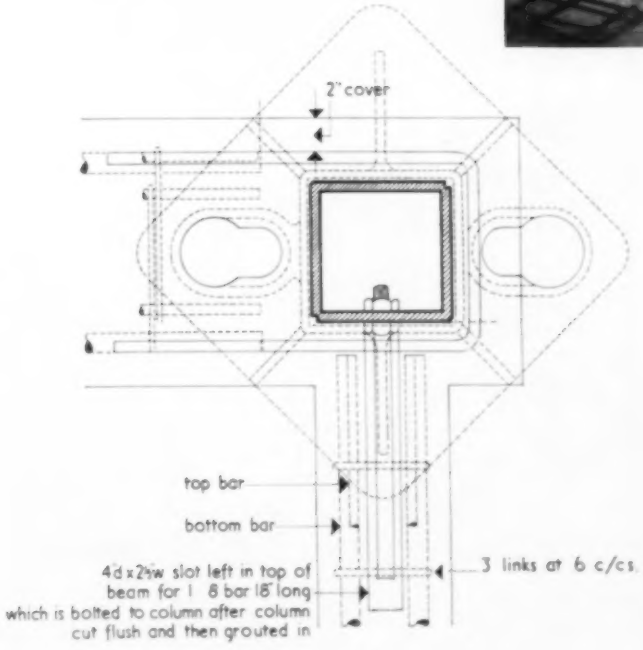
Showing collars



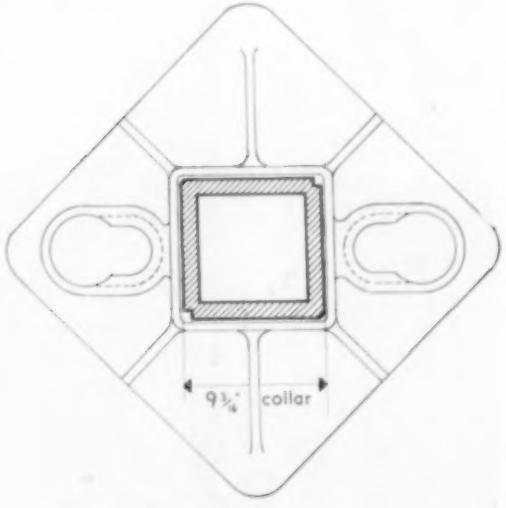
Lifting Procedure



Collar and slab reinforcement


2" cover
top bar
bottom bar
4d x 2½w slot left in top of beam for 1 8 bar 18' long which is bolted to column after column cut flush and then grouted in
3 links at 6 c/cs

HEAD OF COLUMNS

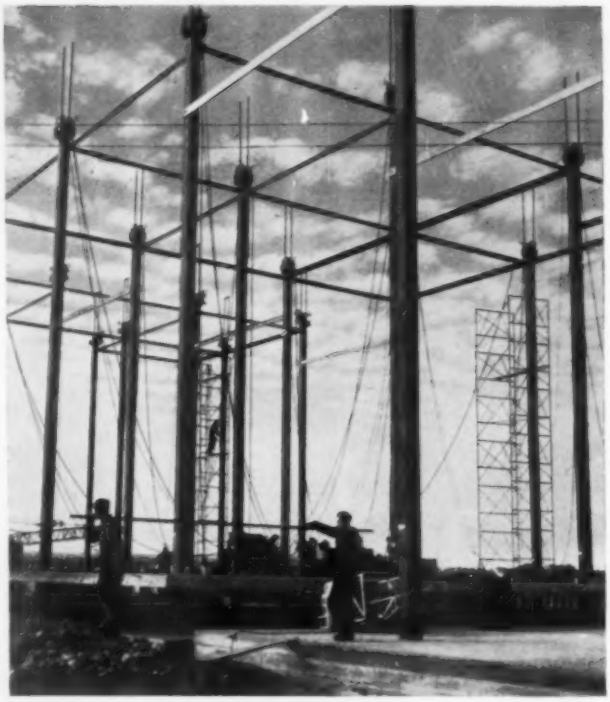


COLLAR DETAIL

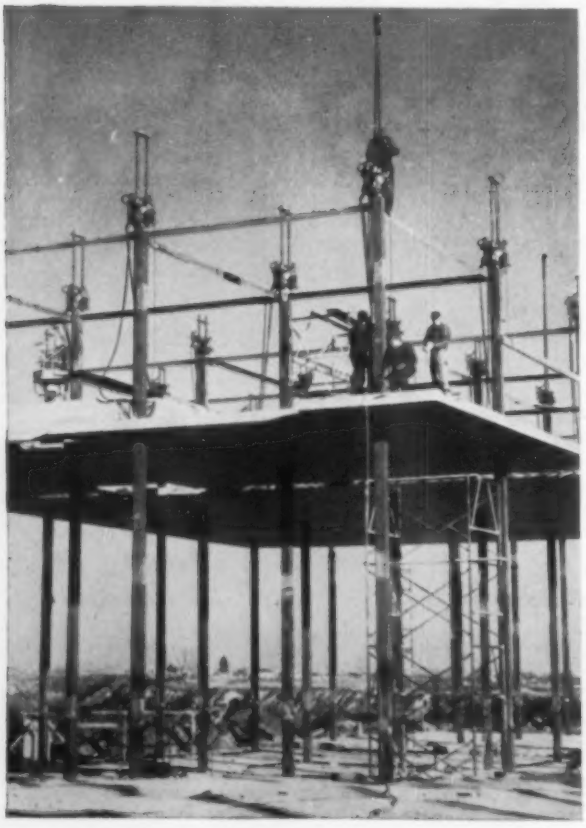
Lift Slab Construction, Calgary

speed of erection is considerable. Two slabs can be lifted in a day with final fixing to follow. Each slab can be poured in four days. Formwork is almost entirely eliminated. The underneath surface of each slab is as good as the machine trowelled polished surface of the floor, with which it has been in contact. Plastering of ceilings is thus entirely eliminated and a plastic paint is the only finish supplied to the ceilings. All heating and electrical work can be incorporated in the slabs on the ground. All concreting is done on the ground. Beams are entirely eliminated thus giving the architect almost complete freedom in his internal arrangements. Floors can be poured in the depth of winter at temperatures of 30°—below 0° F and the heating is confined to the area at ground level where the slabs are made. Finally the cost of the work at Calgary saved rather more than 30 per cent of the cost currently ruling in Canada for the structural portion of the work.

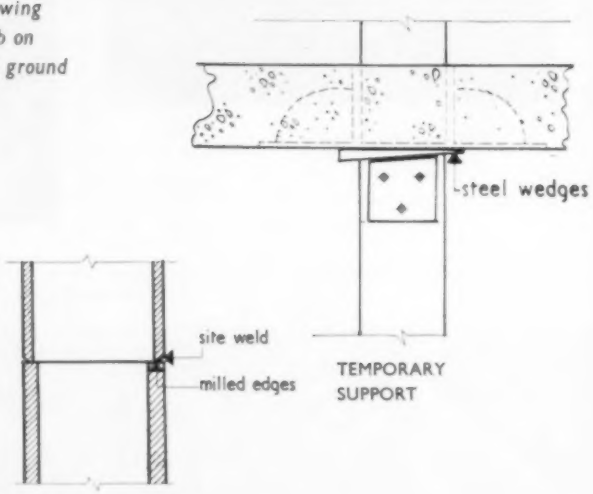
The architect for Rideau Towers was Peter Caspari, F.R.I.B.A., of Toronto, Calgary and London. The structural engineers were W. V. Zinn & Associates, of London and Toronto, chief engineer: W. Sefton, B.Sc., A.M.I.C.E. The Contractors were Bird Construction Ltd. of Calgary, Alberta, and the lifting was carried out by the Canadian Lift Slab Company of Winnipeg.



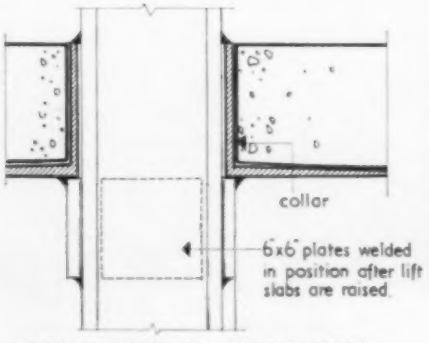
Showing slab on the ground



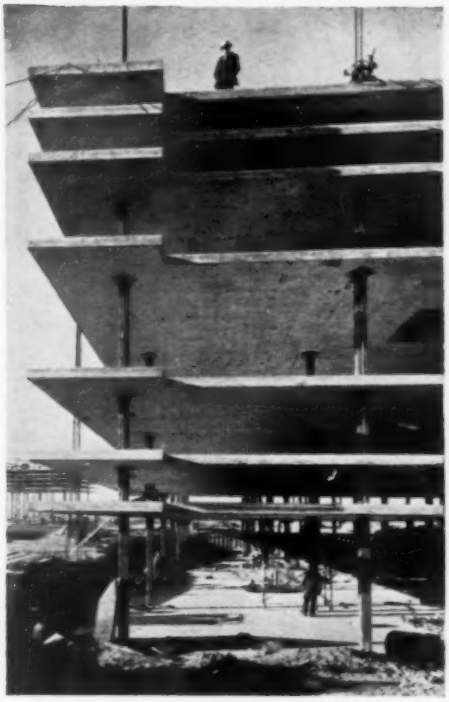
Roof slabs nearing temporary location on lower lift of columns



TYPICAL SPLICE DETAIL



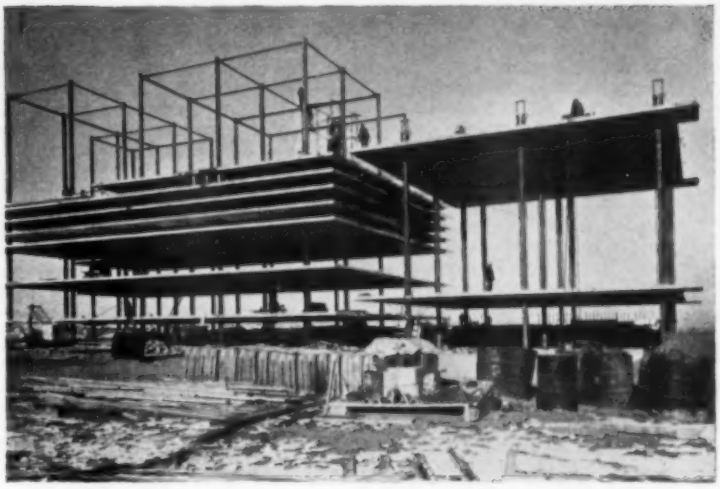
TYPICAL DETAIL OF FINAL SUPPORT



1 End view of slabs

2 First building. Second lift of columns partly erected

3 All slabs in final position



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2

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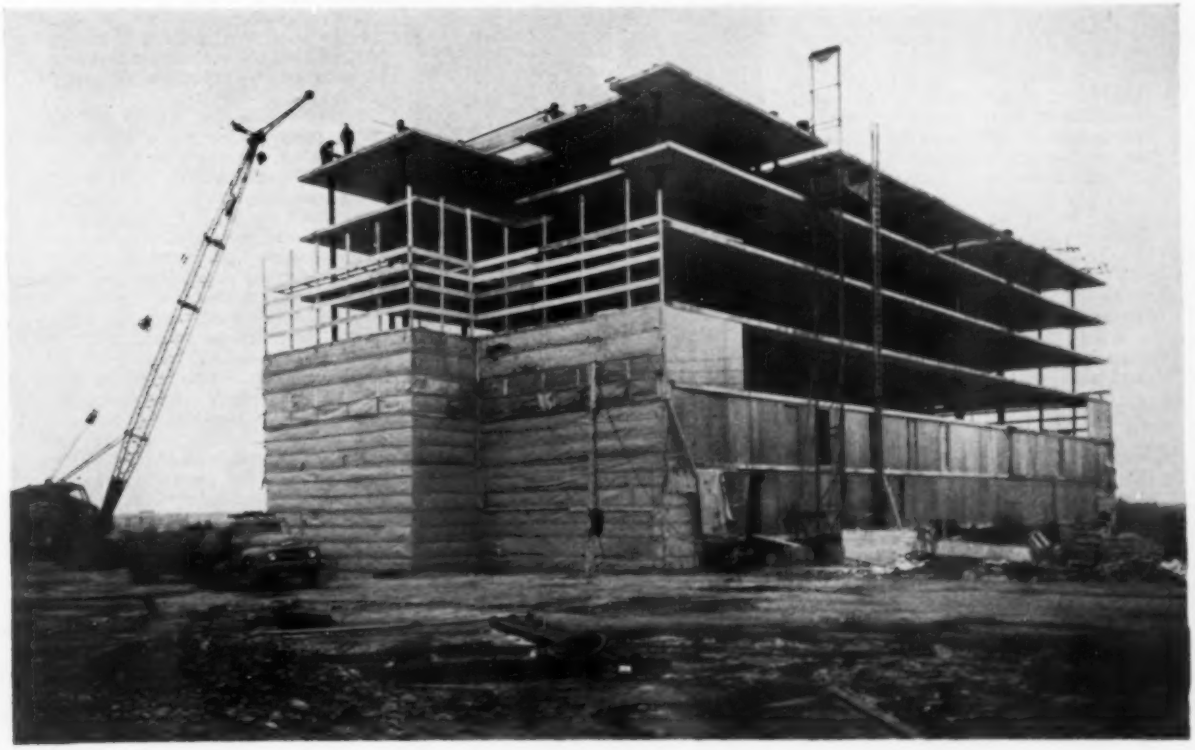


Free Architectural Service

Is the endeavour of planning authorities to improve plans submitted likely to affect private architects?

PLANNING authorities are the guardians of amenity. This, I fully appreciate, is a sweeping statement to make and one's first reaction to it may well be, "A poor job they make of their guardianship; look at the hundreds of monstrosities they allow to be erected."

How would you control development if you were a planning officer? The easy answer to this is to return to the applicant every plan that is not drawn up by an architect. Unless you had a local byelaw to this effect I am afraid your action would soon be challenged, because, as far as I am aware, there is no Act of Parliament which states that every plan must be drawn by an architect. An alternative, and one that is within the law, would be to refuse every plan which, in your eyes, did not conform to the amenities of the area. You would have to persuade your planning committee to approve of this action. Some committees are not so easy to persuade in this respect as you might think. After a few lost appeals your committee might quite rightly begin to wonder if the action you were pursuing was the right one.

The democratic line would naturally be to try persuasion and I believe this is the line that the majority of planning officers, who are interested in improving the amenities of their area, adopt. If a developer seeks the advice of the planning officer in the early days of his project, it is the policy in most offices to try to persuade the developer to employ an architect. I do not think that architects in private practice appreciate how many commissions come their way because a planning officer has recommended the developer to employ an architect.

Unfortunately, I am informed, very few developers discuss their projects, before preparing plans, with planning officers. The plans arrive on a planning officer's desk and his only means of persuasion can be by discussing them with the applicant or his agent.

I defy you to describe a spiral staircase to anyone who has never seen one, and make yourself understood without gesticulating with your hands. It is equally difficult to explain to someone who has no idea of design how you would like his design to be improved, without committing your ideas to paper so that he might appreciate what you are really trying to explain.

This, you may say, is the only commonsense way of going about this difficult task of improving the design of buildings, but I believe it is being frowned upon in certain areas by private architects.

Let us look at it from the angle of the private architect. His grievance must be—if it is admitted he has a grievance—that developers will in time put in any old plan, hoping that the planning office will redesign the project and that there will be no necessity for private architects.

Are planning offices really taking work away from private architects? I have discussed this question with a number of planning officers and am informed that plans they have amended were, in the majority of cases, submitted by developers who would not have gone to architects. In some cases, planning officers have made suggestions to architects so that the project they have been commissioned to design fits in with other proposals in the same area for example, concerning a block of new shops, advice being confined to the height of eaves or parapet, fascia and lettering. The advice is usually accepted in the spirit it is intended.

I hear that this question of planning offices amending plans may be considered by the R.I.B.A. If this is the case, what action can be taken? A strong letter may be sent to planning authorities but this, to my mind, will not produce the desired result, which is, as far as I can see, to encourage more developers to engage a private architect.

I feel that the R.I.B.A. might be reluctant to take any action in the matter, for, if my memory serves me rightly, the panel system had the blessing of the R.I.B.A. Perhaps some of the younger private practitioners have never had experience of working on an architects' panel. Prior to the war many planning authorities laid before a panel of private architects plans submitted to them, for the panel's advice on how to improve the designs submitted. The planning officer was in attendance and noted their observations. It was the usual practice for him to put on paper, for the guidance of developers, the advice offered by the panel.

Did this system take work away from the private architect? I never once heard it said that it did, but the panel carried out the same function as planning offices may, in certain cases, be doing now. Did it encourage developers to go to a private architect? Not as far as I am aware.

Is there any difference between the functions of the panel and the planning office to-day?

Both systems have one fundamental defect, and that is that the person to whom the sketch is forwarded, showing how the building might be improved, very rarely interprets the building in bricks and mortar as you intended. This is understandable, he has not been trained in design and does not appreciate the reason for your suggestions.

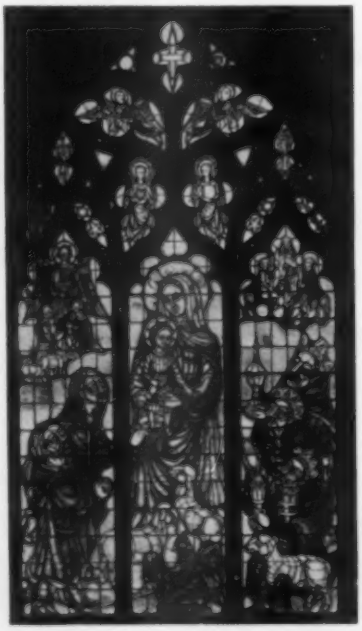
The question, therefore, is—How can we raise the standard of design? Not whether planning offices should try to improve the amenities by making suggestions to developers.

It might be argued that the R.I.B.A. should lobby for an Act of Parliament to the effect that every plan should be drawn by an architect. I have little doubt that this might be a long-term ideal which the R.I.B.A. have in mind, but if it was put forward now I feel it would have little hope of ever becoming law; the opposition from other Institutes and bodies would prevent it.

The R.I.B.A. have taken the initiative in trying to educate the public by issuing that excellent pamphlet, "Before You Build." The object of us all should be to place before the public the benefits of engaging an architect.

I have heard architects say that they are not interested in small jobs, and by the fees that are sometimes charged they make certain the client will not have any desire to return. Unless, therefore, architects are willing to undertake small commissions at reasonable fees, the amenities of an area will have to suffer or the guardians of amenities, the planning offices, will have to try to persuade developers to improve their designs by means of sketches.

M. E. TAYLOR, A.R.I.B.A.



New East window in the church of St. Mary The Boltons
The designer is Miss Margaret Kaye

BRITISH ARCHITECTS' CONFERENCE 1955, HARROGATE, 8-11 JUNE

Programme in Outline

Hon. President: H.R.H. The Princess Royal.

President: Mr. C. H. Aslin, P.R.I.B.A.

Vice-Presidents: The Lord-Lieutenant of the West Riding, The Rt. Hon. The Earl of Scarborough; The Chairman of the West Riding C.C.; His Worship The Mayor of Harrogate, and the President of the West Yorkshire Society of Architects, Mr. Hubert Bennett, F.R.I.B.A.

JUNE 8. *Informal Reception, Majestic Hotel, Harrogate, at which members will be guests of the West Yorkshire Society of Architects.*

JUNE 9. *A.M. Inaugural Meeting at the Royal Hall and Reception by The Mayor of Harrogate. Address by the P.R.I.B.A., followed by papers on "The Organization of the Building Industry and the Architect's Responsibilities," by Sir Thomas Bennett, K.B.E., F.R.I.B.A., and Mr. D. E. Woodbine Parrish, Past President, L.M.B.A.*

JUNE 9. *P.M. Garden Party and (it is hoped) Cricket Match at Harewood House.*
Civic Reception and Dance at the Royal Hall.

JUNE 10. *A.M. Discussion on papers by Sir T. Bennett and Mr. D. E. Woodbine Parrish.*

JUNE 10. *P.M. Choice of Half-day Tours: Tour 1, Leeds; Tour 2, Wakefield; Tour 3, Newby Hall; Tour 4, Fountains Abbey.*
Alternative Whole-day Tours: Tour 5, Yorkshire Dales; Tour 6, York.
Conference Dinner at the Majestic Hotel.

JUNE 11. *Informal visit to places of interest.*
The Headquarters of the 1955 Conference will be at the Majestic Hotel, Ripon Road, Harrogate, Tel.: Harrogate 2261. All correspondence on the subject of the Conference should be addressed to the Secretary of the R.I.B.A., 66 Portland Place.

Harrogate Jaunts

R.I.B.A. members visiting Harrogate this year will have, as always, a wide range of architecturally entertaining excursions available for their choice. A few points come to my mind on some of the places which will most obviously come into their itineraries.

At Richmond, the keep of the castle is an admirable work of the square-planned, somewhat slender type which was in fashion by the later decades of the twelfth century. More specific to the town, and specially worth a visit now that it has been given a repair and preservation grant as a historic building, by the Minister of Works, is the tiny Georgian theatre which will, when restored, be a miniature North-country opposite number to Bristol's famous Theatre Royal.

Ripon has one of the least known among our Cathedrals, but it is one whose architectural and structural evolution, as one can still readily study it, was of more than usual fascination and interest. The West front, with its rather bald rows of thirteenth-century lancets and a pair of squat West towers, is comparatively straightforward. What lies behind it, particularly in the eastern limb of the church, is far more intricate. The original nave was without aisles, but it was unusually wide, almost in the manner of Albi or Gerona. Then, at the end of the pre-Reformation period, when it was thought fit to rebuild it on the conventional aisled plan, it became one of our last really great pieces of Perpendicular architecture, dating from the time of the early Tudors and thus, in a most dissimilar way, being contemporary with King's College Chapel at Cambridge. The choir is a strange architectural patchwork, displaying three distinct phases of Gothic architecture, in addition to its superb, fifteenth-century stalls (considerably repaired by Gilbert Scott) which were, like others to be seen in the North, the work of the very distinctive Ripon school of carvers. Most of the choir's fabric, including the whole of its North arcade, is still the early Gothic of the "Transitional" period between Romanesque and Early English. Some of it, in particular the great "Geometrical" East window and some works in various parts of the aisles, triforium, and clerestory, comes from an unfinished reconstruction set afoot in the last decades of the thirteenth century; in a way it recalls the somewhat similar process carried out in full at Wells in the following century. Finally, the eastern arch of the crossing, some bosses, and the three western bays of the South arcade, are clearly Perpendicular, the rebuilding being made essential by the partial fall, about 1450, of the central tower.

Near Ripon is Fountains, reminding us, above all other sites, that Yorkshire is pre-eminently the county of great monastic ruins. Fountains is not only magnificent as a piece of Cistercian architecture, it is remarkable as an abbey where a genuine ruin, not merely one run up by Sanderson Miller or one of the Hiorns, has been brilliantly worked into the "landscaped" scenery of a great Georgian park. Elsewhere in the parklands of Studley Royal an avenue of trees is so aligned as to give a long vista with Ripon Cathedral at its far end. The tower of the abbey, added by Abbot Huby at the end of the fifteenth century, is quite evidently by the designer who also planned the tower erected about the same time over the crossing arches of the abbey at Kirkstall.

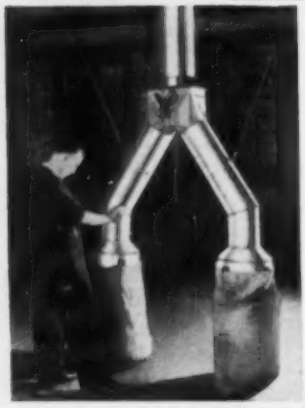
Lastly, Leeds. Kirkstall Abbey, one of our very finest monastic ruins and relatively to its pre-Reformation structure better preserved than Fountains, is an essential for any visitor; it is well cared for by the Leeds Corporation. The two churches of St. John's and Holy Trinity are both worth a visit. St. John's, both in its structure and its complete furnishing, is the quintessence of Laudianism. The early Georgian Holy Trinity, where its designer, William Halfpenny (an alias for the perfectly good name of Michael Hoare) may have owed something to Gibbs' St. Mary le Strand, must on no account be missed. Only by seeing it can one realize how great will be Leeds' loss if the vandalistic episcopal scheme for its demolition proceeds on its insensitive and baneful course. Elsewhere in the city, I am told that the early nineteenth-century back-to-back slums are a grim object lesson in how the housing problem was once tackled. Last of all, the main railway station presents both a contrast and a challenge. The Midland half of it, entirely rebuilt not long before the last war, is perhaps our best large station in this country. But Hitler saved the North Eastern half, and as Leeds is an almost unbombed city, it survives and takes its place quite firmly at the other end of the scale. As the new diesel age is likely, in due course, to see a good amount of station building, the architect visitors of 1955 might do worse than go away with some bright ideas for Leeds.

BRYAN LITTLE.

MOSAICS

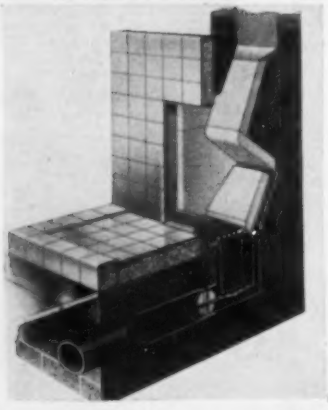
PLANT
MISCELLANEOUS
E16/1

The "Davenset" automatic pump, Mark II, is a product of Partridge Wilson & Co. Ltd., Davenset Electrical Works, Leicester. It is a development of the 1940 design used for draining air-raid shelters. The electric motor and switches are mounted in the upper half of the container. When the pump is lowered into water, the air trapped inside the container prevents water from rising into the motor compartment (same principle as the air bell). It is advisable for the pump to be placed in a sump into which the water will drain off the floor or ground. As the water rises in the sump the float switch operates and the motor starts up and continues to operate until the water level is lowered. Mains supply: 200/250 volts, 50 cycles, single phase A.C.



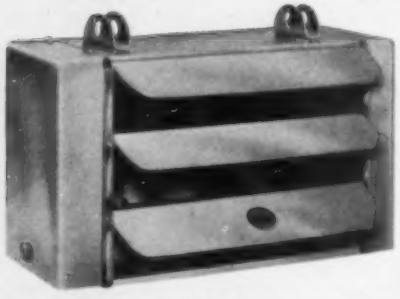
PLANT
FACTORY EQUIPMENT
E14/13

Dallow Lambert & Co. Ltd., Spalding Street, Leicester have recently introduced the K.C. two-way control valve for use in dust control systems. Basically the device consists of a "Y" piece containing a metal chute which can be pivoted to direct the flow of gas and material as required. It can be used with all types of dusts, chippings, wood waste, etc. The smooth flow path through the valve minimizes the tendency for build-up of solids to occur in the valve. The branch of the valve isolated by the chute is sealed by the chute seating on a flexible plastic joint. The spring-loaded mechanism of the valve can be operated manually or by remote control. Made in a range of sizes to fit ducting of 4in. to 22in. diameter.



SERVICES
SPACE HEATING
B3/67

In the "Summit" fire the waste gases are burnt and converted into heat by drawing air from underneath the floor, passing it behind the back of the fire where it is heated and introducing the now hot air through a long slot or vent just above the fire. The hot air travels over the top of the fire and ignites the unburned gases, thereby adding extra flame and heat to the fire. Two air control levers are inconspicuously situated at the front of the fire. The "Summit" is manufactured by Grange-Cameron Iron Co. Ltd., Falkirk and Warrington Light Castings Co. Ltd., Warrington. It burns all solid fuels and can be fitted to any surround.



SERVICES
SPACE HEATING
B3/68

Hurseal Ltd., of 229 Regent Street, London, W.1, are now producing an improved dual-purpose electric unit heater for offices, factories, churches, warehouses, etc. The elements are arranged to provide an even temperature rise for the whole of the air passing through the unit. Mounted between 6ft. and 9ft. above the floor the heater discharges warm air at a fair velocity to give rapid warm-up and even temperature throughout the building. It is, therefore, suitable for infrequently used buildings or where heat is required for short periods. If required, the fan in the unit can be arranged to operate independently to provide ventilation only and for this purpose a short duct can be fitted from the rear of the heater to the outside air. Adjustable louvres provide air stream control and all units have a safety cut out and safety mesh guard. Three heat or thermostatic control can be fitted. Prices are 2.625 kW. £15 7s 6d, 5.25 kW. £20 17s 6d 10.5 kW. £32 19s 6d.

INDUSTRIAL NOTES

● A most successful display of wall finishes and wall materials was opened at the Scottish Building Centre, Sauchiehall Street, Glasgow, in March, to demonstrate the wide scope of modern treatments for specific purposes.

Sponsored jointly by the Scottish Committee of the Council of Industrial Design, the Ministry of Works and the Scottish Building Centre, the display featured two main completed rooms to demonstrate varied finishes and treatments. Coincidental with this display of materials, the show included the R.I.B.A. draft "101" colour range, and the "Munsell" range.

● A selection of new Mazda commercial and industrial lighting fittings has been installed as a display in the Building Centre at 26, Store Street, London, W.C.1. This is in addition to the Mazda 5ft single-lamp fluorescent fittings used extensively in the lighting installation of the building.

● Masonite Enamelled Presdwood has been reduced in price from 1s 10d to 1s 9d per square foot.

● Invitations to visit the British Industries Fair in May are being sent this week to 75,000 businessmen in Britain. This is the final boost in a six-month campaign to attract trade buyers from this country and the rest of the world.

● Permanite, Ltd., announce with much regret the death on March 16 of Mr. A. K. Lingard, who has been their sales manager since 1948. He is succeeded by Mr. J. S. Sheppard.

● Copperad, Ltd., announce that an office is being opened at Chesterfield Chambers, Westbourne Place, Queens Road, Clifton, Bristol, 8. Mr. R. Wilyman has been appointed manager.

● Sherwood Floors, Ltd., of 437, High Road, Ilford, have been appointed London agents for the Windsor Mosaic Floor. This firm, whose head office is at Church Street, Beeston, Nottingham, provides a specialist service for architects and builders.

● The Board of Associated Electrical Industries, Ltd., announces that its subsidiary, the Hotpoint Electric Appliance Co., Ltd., has absorbed the businesses carried on by two of its other subsidiaries, International Refrigerator Co., Ltd., and Premier Electric Heaters, Ltd.

● The British Colour Council announced that the Art Director, Mr. Robert F. Wilson, was invited to attend the First World Congress on the Prevention of Occupational Accidents at Rome, April 2-6, 1955, as a representative of the British Colour Council.

● Sunvic Controls, Ltd., announce that they have appointed Mr. D. M. Gill as technical representative in the North-West England area for their process control division. Mr. F. N. Yates, of 36a, Brownsville Road, Heaton Moor, Stockport, will in future be their technical representative in the same area for the scientific and industrial divisions.

They have also appointed Mr. W. F. Dorman as a technical representative in the London and Home Counties area for their scientific and industrial divisions. Mr. F. C. Chaventre will in future be their technical representative in the same area for the process control division.

● Permanite, Ltd., wish to inform the trade that their first-quality roofing felt, previously known as Heavy-Duty, 1-, 2- and 3-ply, will in future be known as Permanite 1-, 2- and 3-ply.

HOPE'S

STEEL DOOR FRAMES

NOW

available in 18g. zinc-coated steel

AT REDUCED PRICES

send for details:

HENRY HOPE & SONS LTD
SMETHWICK, BIRMINGHAM
LONDON: 17 BERNERS STREET, W.1

In the finish, it pays to specify Titanium Oxide

It's trite to quote "Don't spoil the ship for a ha'porth of tar" but also very true. Titanium Oxide bears no resemblance to tar—it is the finest white pigment obtainable, and is essential for all modern white and pastel shade paints. To it they owe their remarkable brilliance and hiding power, and freedom from discolouration. Titanium Oxide is the modern pigment for better paints—paints with long lasting protective and decorative qualities—paints that are free from cracking, checking and flaking. All this means that fewer coats are needed—protection is complete throughout the life of the paint and when finally a repaint is needed, no burning off—just a rub down presents a perfect surface for new paint.

Specify titanium paint and have the best.

Issued in the interests of better paintwork.

BTP TITANIUM PIGMENTS

Factories at Grimsby and Billingham and at Burnie, Tasmania. Agents in most principal countries.

BRITISH TITAN PRODUCTS COMPANY LIMITED
COPPERGATE
YORK

CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size. **March, 1955**

AGGREGATES AND SAND

1½ inch—all in — ballast	23/–	Yard cube delivered (in five yard loads or more)
¾ inch do. do.	24/–	
¾ inch screened shingle	22/9	
¾ inch do. do.	23/–	
¼ inch granite chippings	45/–	
Sharp washed sand	23/–	
Pit sand	22/3	
Building sand	22/3	
Broken brick	18/6	
1½ inch shingle	22/–	
Cartage of muck	8/–	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags		Per ton
Portland in 6 tons lots		96/6
Do., from 1 ton to 5 ton 19 cwt do.		105/6
Do., Rapid hardening (6 ton lots)		104/6
Do. (but 1 ton to 5 ton 19 cwt)		113/6
Cement "Aquacrete" (do.)		138/–
Do., "417" or "Polar" (do.)		138/–
Do., "White" 1 ton (lots)		257/–
LIME—	127/– (1 ton loads)	deliv'd
Hydrated and Ground including paper bags	124/6 (2/3 do.)	do.
	114/6 (4/5 do.)	do.
	112/6 (6 do.)	do.
PLASTER—		
Keenes, coarse, pink (2 ton lots)	188/6 ton	
Do. do. white (do.)	194/– do.	
Sirapite, do. (2 ton to 3 ton 19 cwt lots)	139/6 do.	
Do. finish (do.)	147/6 do.	
Hardwall, do. (do.)	148/9 do.	
Plaster, coarse, pink (do.)	137/3 do.	
Do. do. white (do.)	145/9 do.	
⅜in. Plaster baseboard (25 to 75 yards)	2/10 Yard Sup.	
½in. Do. (150 to 299 yds.)	2/6 do.	
3½in. Jute scrim (100 yd. roll)	9/– each	
Cow hair (under 3 cwt.)	97/6 cwt	
FIRECLAY—		
Stourbridge, loose (1 ton lots)	166/3 ton delivered	
Fire cement	12/3 14 lb.	

BRICKS

BACKING BRICKS (in truck loads)—		
Flettons	113/–	per 1,000 delivered
Do. Keyed	115/–	do.
Do. bullnose	133/–	do.
Blue wirecuts	462/6	do.
White	192/–	do.
Southwater engineering (No. 1)	370/–	do.
Firebricks—2½ inch	69/3	per 100 delivered
Do. —3 inch	87/3	do.
STOCK BRICKS—		
Mild stocks	176/6	per 1,000 at Works
Second, do.	211/–	do.
First do.	227/–	do.
Add for delivery—approx. 45/– per 1,000 in lorry loads.		
FACINGS (ex truck or lorry)—		
Rustics	138/–	per 1,000 delivered
White	200/–	do.
Blue pressed, 2½in	509/6	do.
Do. bullnose	527/6	do.
Reds (Multi sand faced)	290/–	do.
White glazed stretchers	1280/–	do.
Do. headers	1260/–	do.
Do. bullnose	1600/–	do.
Do. double stretchers	1700/–	do.
Do. double headers	1500/–	do.
Breeze fixing bricks	28/6	per 100
Fire tiles and lumps	33/–	foot cube
Wall ties—8″ × ¾″ × ⅛″, black	57/–	per cwt.
Cement mortar (1 : 3) hand-made	82/–	yard cube

BRICKLAYERS' SUNDRIES—

AIR BRICKS		9 × 3in.	9 × 6in.	9 × 9in.	12 × 9in.
Iron	each	1/11	3/1	4/8	6/2
Galvanized do.	do.	3/4	5/6	8/4	11/1
Terra Cotta	do.	1/3	2/6	5/3	10/2
Chimney pots, Terra Cotta (11 to 25)	1ft. do.	6/8	2ft. 11/8	3ft. 26/6	4ft. 45/8

PARTITIONS—

18in. × 9in. Blocks keyed for plastering.

Per yard super in 6 ton lots	2in.	2½in	3in
In solid clinker including any half blocks	3/7	4/2	5/–
In cellular clinker blocks	4/3	4/11	5/9
In hollow clay blocks	4/3	4/6	5/2
Clinker blocks in small quantity	5/2	6/1	7/4

Intermediate quantities in all types may be had at intermediate prices.

Smooth in lieu of keyed faces extra cost per side 3d. per yd. super.

SINKS

Fireclay white glazed in and out—standard quality

	24 × 18in	30 × 18in	30 × 20in
London pattern, no overflow, 6in. deep	62/–	77/–	81/–
Belfast, plain edge, 10in deep	71/–	122/–	163/–

FLUE LININGS PLAIN, CIRCULAR

	Foot lineal Straight	Each Bends
9in diameter	3/8	11/–
10in do.	4/7	13/9
12in. do.	8/8	26/–
9in diameter, beaded end, 12in high		4/10

FLUE PIPES AND FITTINGS

	4in	5in	6in
Heavy asbestos type, 6ft length	15/3	21/–	26/6
Do. 3ft length	7/8	10/6	13/3
Do. bends	5/9	7/3	8/8
Light asbestos type, 6ft length	12/6	15/9	21/–
Do. 3ft length	6/3	7/11	10/6
Bends	4/7	5/9	6/11
Baffler	12/5	14/9	15/8

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST

ORDINARY TYPE—EACH	4in	6in	9in
Pipes in 2 feet lengths	1/8	2/6	4/6
Bends	2/6	3/9	10/1½
Junctions (4in on 4in, 6in on 6in, 9in on 9in)	4/2	6/3	13/6
Gullies with 4in outlets	6/3	6/10½	11/3
4in horizontal inlets	2/–	3/–	5/–
4in vertical ditto	3/–	4/–	7/–
Black iron grids	9*d*	1/5	2/9

Adjustment to Current Cost

	2 ton lots or more	Less than 2 ton lots: 100 pieces or more	Under 100 pieces
"Best" pipes and fittings. Percentages to add	67½	97½	107½

Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 37½ British Standard Tested, 47½.

IRON DRAINAGE GOODS—

Each	4in	6in
Cast iron pipes, 9 feet long	64/9	96/–
Do. 6 feet do.	46/10	73/6
Do. 4 feet do.	36/7	57/7
Do. 2 feet do.	22/5	34/4
Short bend	15/–	31/2
Junction	26/5	51/–

CURRENT MARKET PRICES *(Continued)*

DRAINAGE GOODS—*Continued*

GULLEY PARTS—	4in	6in	
Traps, high level, invert	24/–	60/–	each
Inlet, bellmouth pattern	13/10	22/3	do.
Do. with one vertical branch	18/7	28/6	do.
Do. with two do.	53/–	95/–	do.
Extra for Sealed cover	8/6	11/–	do.

RAINWATER SHOES	4in	6in	
With vertical inlet and rebated top	27/–	72/–	each
Extension piece, 6in high	15/–	16/3	do.
Flat loose coated grating	3/8	3/8	do.
Loose solid coated cover	4/10	4/10	do.

MANHOLE CHANNELS, WHITE GLAZED—

Each	4in	6in	9in
Straight, 2 feet long	15/–	21/3	36/3
Taper, ditto	25/–	25/–	37/6
Bends, main, half section	28/9	41/3	67/5
Ditto, branch, ditto	17/6	25/–	—
Ditto, ditto, three quarters, ditto	25/–	38/9	—
Junctions, single	23/9	41/3	—
Ditto, double	32/6	56/3	—

BROWN GLAZED CHANNELS—
Based on standard list (less than 100 pieces)

	4in	6in	9in
Half-round main channel (2ft long)	2/8	3/11	7/–
Extra for stop ends	2/8	3/11	7/–
Extra for outlets	5/3	7/10	—
Channel bends with splayed ends	7/10	11/8	—
Three-quarter section do.	10/5	15/7	—

MANHOLE COVERS—	Black	
24 × 18in Light foot traffic	27/–	each
Do. Strong do.	35/–	do.
Do. Light car traffic	98/–	do.
Do. Road traffic	155/–	do.

SUNDRIES—	Galvanized	
Manhole steps	7/9	each
4in Mica valve fresh air inlets (L.C.C.)	26/6	do.
Plumber's hemp	7/3	per lb.
Gaskin, caulking	1/5½	do.
Canvas backed hair felt, 4in wide	9*d*.	per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)—

Sizes in inches	Full Loads per 1,000	Quantity 100 to 499 per 100	1 to 99 per doz.
22 × 11	1735/–	240/–	31/6
20 × 10	1532/–	209/6	28/–
18 × 10	1119/–	151/6	20/–
16 × 10	927/–	126/–	16/9
14 × 9	711/6	86/–	11/3
14 × 4½	316/3	38/3	5/–

TILES (Broseley and Staffordshire)—	per 1,000	per 100
10½" × 6" Machine made	297/6	36/–
Do., hand made, sand faced	354/6	43/–
Hips, valleys and angles	31/–	per dozen
	Per 1,000	Per 100
Plain concrete tiles	177/–	19/6

Sheeting asbestos corrugated, 6in pitch (23 to 85 super yard lots)	6/8½ yard super
4½in × 16 gauge, drive screws (galvanized)	16/3 gross
7½ × ⅜ hook bolts and nuts (do.)	48/– do.
Washers, round, flat galvanized	4/9 do.
Do. do. bituminous	2/– do.

ROOFING FELT—		
Sanded bitumen felt (55lb)	1/–	Yard Super
Ditto, but 75lb in weight	1/6	Do.
Inodorous felt, best quality	3/–	Do.
Ditto, second quality	2/4	Do.
Underlining	1/8	Do.
Sheathing	1/8	Do.
Galvanized felting nails	1/6	lb

PRECAST CONCRETE LINTOLS—
1 : 2 : 4—½in material, finished with fair exposed faces, including all form-work, and one ½in diameter mild steel rod reinforcement to each 4½in in width.
Per foot lineal delivered to site.

4½in × 6in	9in × 6in	9in × 9in	13½in × 9in	18in × 9in
4/–	6/–	7/8	9/6	11/6

STONE

PER FOOT CUBE in random blocks not exceeding 20ft average in each.
BATH STONE F.O.R. SOUTH LAMBETH—
Monks Park 7/10 St. Aldhelm 8/10
STONE F.O.R. NINE ELMS—
Portland brown Whitbed 8/1½
Over 20ft average cube blocks extra cost.

TIMBER

Softwood—sawn—random lengths.

	Per Standard	Per cubic foot
Carcassing quality	£105	12/8
Joinery quality	£120 and up	13/4

Plain edged unsorted flooring, per square

½in	1in	1¼in	1½in
90/–	110/–	138/–	165/–

½in insulating wall board (600 yards) 4/6 yard super.
Larger quantities cost less, and smaller quantities more.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	½in	7*d*	9*d*	11*d*
	⅝in	10*d*	1/1*d*	1/4*d*
	¾in	1/2*d*	1/6*d*	1/10*d*
Sashline, hemp, good quality Per Yard Run		No. 6 9*d*.	No. 8 1/1	No. 10 1/4
Floor brads				64/– per cwt
Cut Clasp Nails				65/– per cwt
Steel ordinary screws	1"	No. 8 2/10	2" No. 8 4/10	per gross
Brass, ditto		Do. 8/8	Do. 15/2	

HARDWOOD—

	Per ft super ¾in	1in	Per ft cube
Prime			
African mahogany	2/4	2/6	28/–
Honduras ditto	3/3	4/–	50/–
Portuguese Guinea ditto	3/1	3/3	36/–
African walnut	2/5	2/7	29/–
Australian ditto	5/6	5/10	65/–
English oak	4/3	4/6	50/–
Yugoslavian ditto	3/4	3/7	40/–
Burma and Siam Teak	5/–	5/9	65/–

DOORS.—STANDARD TYPE SOFTWOOD

Each in quantities 12 or more.
1¾in finish, 4 horizontal panels moulded both sides 6ft 6in high.
2′ 3″ wide 41/–
2′ 6″ do. 42/3
2′ 9″ do. 44/6

FLUSH DOORS 1¾in thick, ply faced both sides, lipped edge.
All 6ft 6in high.
2′ 3″ wide 47/6
2′ 6″ do. 49/6

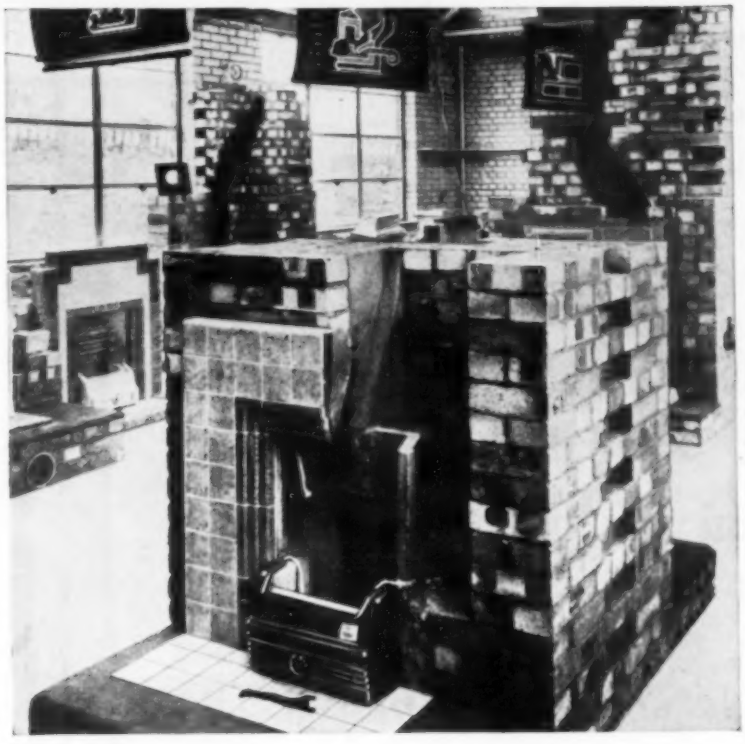
PANELLED DOORS:
see B.S. 459—Part 1.

FLUSH DOORS:—
see B.S. 459—Part 2.

2in (nominal) as last but upper panel prepared for glazing
2′ 6″ wide 59/–
2′ 9″ do. 62/–
2in (ditto) all as above but in 3 panels.
2′ 6″ wide 55/9
2′ 9″ do. 58/3
2in (ditto) all as above but in 2 panels.
2′ 6″ wide 51/3
2′ 9″ do. 53/6

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	10*d*.	1/5	2/3	4/3	6/–
Hinges, spring, single action regulating, japanned, each	—	7/6	9/9	13/3	17/3
Do. but double action spring only, each	—	13/6	14/9	22/3	27/9
Do. black only, each	—	8/3	11/3	17/–	20/9



Practical help for architects and builders

At the Coal Utilisation Council Training Centre in London, courses are held for builders' staffs on the correct fixing of modern solid-fuel appliances. Similar Coal Utilisation Council courses are also arranged at many Technical Colleges.

Are you getting the full facts on the case for solid fuel?

The Coal Utilisation Council's chief aim is to secure the efficient use of solid fuel in British homes. Not simply in the interests of coal, but in the interest of the private consumer and the community, for, as the Simon Report says, " solid fuel, burned in efficient appliances for continuous heating of rooms or of water, costs the householder about half as much as gas or electricity and uses about half as much coal ".

What the C.U.C. is doing to help

Every six months the C.U.C. issues a list of Recommended Domestic Solid-Fuel Appliances. All appliances on this list have been tested to ensure a high standard of efficiency, durability and economy. In the interest of your clients and your firm, it pays to consult this list when recommending domestic solid-fuel appliances for any purpose.

Because recommended solid-fuel appliances must be correctly installed, if they are to be fully efficient, the C.U.C. also provides a service of instruction on installation for architects' and builders' staffs, and all authorities concerned with building or converting houses. Two-day courses on fixing are held at the C.U.C. Training Centre in London. For builders' staffs unable to attend these, special one-day courses are held at Technical Colleges in various parts of the country.

In both cases, the instruction is given by experts, with plenty of practical demonstrations. Direct enquiries on the scope of these training courses should be made to the C.U.C. at the address below—or to any of the C.U.C. Information Centres which appear on the right.

Issued by the

COAL UTILISATION COUNCIL, 3 UPPER BELGRAVE STREET, LONDON, S.W.1

C.U.C. Information Centres

Birmingham
2 Burlington Passage, New Street (*Midland 5133*)

Bristol
5 Broad Quay, City Centre (*Bristol 21227*)

Cambridge
24 St. Andrew's Street (*Cambridge 55274*)

Cardiff
9 Castle Street (*Cardiff 28266*)

Glasgow
341 Bath Street, C.2 (*Douglas 8294*)

Leeds
99 Albion Street (*Leeds 3-43711/2*)

London
The Building Centre, 26 Store Street, W.C.1 (*Museum 5400*)

Manchester
257 Deansgate (*Blackfriars 2852*)

Newcastle upon Tyne
18 Saville Row (*Newcastle 21666*)

Nottingham
4 and 6 St. Peter's Gate (*Nottingham 47000*)

Important C.U.C. Publications

" List of Recommended Domestic Solid-Fuel Appliances "

" Warmer Homes with Solid Fuel "

" Make your House Cosier in Winter " (*Insulation booklet*)

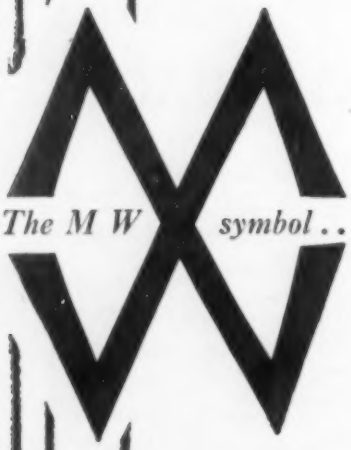
" Fuel Stores for Houses and Flats "

"Architectural Design Data" (*Fuel handling and storage for larger buildings*)

For complimentary copies of the above, apply to the Publications Dept., C.U.C., 3 Upper Belgrave St., London, S.W.1.

Since 1946–
2 out of 3 new homes have been fitted with Metal Windows

..due to the efforts of the Metal Window Association



The M W symbol ..... of the Metal Window Association is a guarantee of good faith and good work. For many years the members have been gradually improving the efficiency and finish of Metal Windows.

THE METAL WINDOW ASSOCIATION

BURWOOD HOUSE, CAXTON STREET, LONDON, S.W.1.

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges (japanned), per pair	2/–	3/10	—	—	—
Do. but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10

BOLTS—each—	3in	4in	6in	8in	10in	12in
Cabinet, barrel, straight or necked	1/4	1/6	2/–	—	—	—
Square spring, with brass knob	1/3	1/6	2/–	—	—	—
Tower bolts	—	1/7	2/3	3/–	3/9	4/6
Barrel bolts	—	2/7	3/9	4/10	6/3	7/7
Add to Tower or Barrel bolts if necked	—	5½*d*	6½*d*	8*d*	8*d*	8*d*

LOCKS—each			
Rim lock, 2 lever, wrot case brass bolt and bushing	11/9	Brass furniture	3/–
		or Bakelite do.	3/1
		Bakelite finger-plates	2/3
Mortice lock, 2 lever, bushed	12/–	Brass furniture	7/–
		or Bakelite do	3/8
Cylinder latches, japanned case			17/–
Brass sash fastener		each	4/–
Casement fasteners (malleable)		do.	1/6
Do. stays (do.)		do.	2/–
Axle pulleys (brass face, iron wheel)		do.	3/10
Do. as last, but with brass wheel, 1¼in		do.	4/8
Sash line, No. 8 Anchor yellow label		per yard	1/–

METAL GOODS

British rolled steel joists ex works to basis sections (6in × 5in, 8in × 5in or 6in, and 10in or 12in × 6in)	£33/10/0	per ton
Extra cost over basis for following sections:—		
9in or 18in × 7in, 14in. × 5½in, 15in × 5in, 14in or 15in or 16in or 18in × 6in, 20in × 6½in, 20in × 7½in, 10in or 12in or 14in or 18in × 8in	10/–	per ton
5in × 4½in, 7in × 3½in, 13in × 5in	15/–	do.
12in × 5in, 22in × 7in	20/–	do.
6in × 4½in, 7in or 8in or 9in × 4in, 10in × 5in	25/–	do.
4in × 3in, 10in × 4½in	30/–	do.
5in × 2½in, 5in × 3in	35/–	do.
6in × 3in, 24in × 7½	40/–	do.
3in × 3in	50/–	do.
4½in × 1½in	65/–	do.
3in × 1½in, 4in × 1½in	70/–	do.
⅜ mild steel reinforcing rods ex mills	£34 0 0	do.
Extras per ton		
½in and ⅝in diameter in size	32/–	per ton
⅝in do. do.	32/–	do.
¾in do. do.	49/6	do.
⅞in do. do.	67/–	do.
1in do. do.	87/–	do.
1⅛in do. do.	124/6	do.
Extras for length		
5ft to 3ft	7/6	do.
3ft to 2ft	15/–	do.
2ft	22/6	do.
40ft to 45ft	15/–	do.
45ft to 50ft	22/6	do.
Bolts and nuts	85/–	per cwt
Trench covering, including trays 1½in deep and rebated frames, 9in wide	20/6	foot run
Do., but 12in wide	22/–	do.
Do., but 14in. wide	24/–	do.
Do., but 18in wide	31/6	do.

METAL SUNDRIES

Cast iron pavement light filled with 4in × 3in glass lenses	40/–	per ft. super
¼in wrought iron plate door in four panels with stiles and rails on both sides	45/–	do.
20 gauge galvanized iron trunking and straps	5/–	do.
24 gauge galvanized Tallboy 6ft high 9in diameter with 9in × 12in base	55/–	each.

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.

2in mesh.	Height in inches— 36	42	48	60	72
10½ wire gauge	90/–	105/3	120/3	150/–	180/3
12½ do.	63/3	74/–	84/6	105/9	126/9
14½ do.	45/3	52/9	60/3	75/6	90/6

DOUBLE SOOT DOORS AND FRAMES—

	9in × 9in	12in × 9in	14in × 12in
Fitted with brass turnbuckle and cast key	17/3	25/–	42/9

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100 square feet with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	14/–	foot super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	11/–	do.
Steel partitioning, glazed (rough cast) and stove enamelled	17/–	do.

STEEL ROOF LIGHTS—

Lanterns with vertical sides, and hipped roof, glazed with ¼in cast glass and lead flashed.	16/6	foot super
Skylights of similar construction (180ft super)	15/6	do.

HIGH GRADE DOMESTIC BOILERS

Coke fed. Performance 20 to 40 gallons raised from 40°F to 140°F per hour as under.

TYPE		£	s	d
20 gallons per hour 15in wide, 23in high.	Plain cast iron black finish	7	3	3
	Ditto, in cream mottle finish including side jackets	10	3	6
25 gallons per hour 19in wide, 22in high	In cast iron as before and base plate	10	13	6
	Ditto in cream mottle with side jackets and base	15	13	9
40 gallons per hour 22in wide, 23in high	In cast iron, etc., as last ditto	16	18	6
	Ditto in cream mottle all as last ditto	22	18	0

GAS, WATER AND STEAM TUBES

(From Standard List)

Internal Diameter—	¼in & ⅜in	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft	4*d*	4½*d*	5½*d*	6½*d*	9½*d*	1/1	1/4½	1/10
Bends each	8*d*	9*d*	11*d*	1/2	1/7½	2/7½	3/2	5/2
Elbows, sq. do.	10*d*	11*d*	1/1	1/3	1/6	2/2	2/7	4/3
Do., round do.	11*d*	1/–	1/2	1/5	1/8	2/4	2/10	4/8
Tees do.	1/–	1/1	1/3	1/7	1/10	2/6	3/1	5/1
Crosses do.	2/2	2/4	2/9	3/3	4/1	5/6	6/7	10/6
Backnuts do.	2*d*	2*d*	3*d*	3½*d*	5*d*	6*d*	8*d*	1/1
Sockets do.	3*d*	3*d*	4*d*	5*d*	6*d*	8*d*	10½*d*	1/3
Sockets, dimin. do.	4*d*	5*d*	6*d*	7*d*	9*d*	1/–	1/4	2/–

PERCENTAGES ON OR OFF ABOVE

In quantity and in random lengths.

TUBE—			
Class A (light)	—18%	Black	+ 2% Galvanized
Class B (medium)	— 8½%	Do.	+18% Do.
Class C (heavy)	+3%	Do.	+35% Do.
FITTINGS			
Lightweight	+12%	Black	+26% Galvanized
Heavy	+21%	Black	+35% Do.

RAINWATER GOODS (Painted or Unpainted)

In consignments of 5 cwt. and over.

From Standard List.

Pipe:		2in	3in	4in	5in	6in
6ft lengths	each	12/10	14/5	18/11	24/8	31/6
3ft do.	do.	7/–	7/9	10/–	13/1	16/6
Shoe, ordinary	do.	2/7	3/10	5/7	9/5	12/11
Bend	do.	3/1	4/4	6/3	11/3	14/7
Branch, single	do.	4/6	6/7	9/3	14/7	22/6
Offset, 4½in	do.	3/9	5/3	7/9	12/11	17/–
Do. 9in	do.	4/11	6/6	9/8	15/3	19/3
H.R. gutter, 6ft length	do.	—	6/–	8/5	10/4	13/10
Angle or nozzle	do.	—	2/6	3/1	3/9	5/4
Stop end	do.	—	9*d*	1/1	1/6	1/9

Above plus 2½%

CURRENT MARKET PRICES *(Continued)*

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—

Metal lathing (½" × 24G.) (20 yds.)		3/3 sq yard
Plaster baseboard, ⅜" (600 yards)		2/5 do.
Lath nails, galvanized		1/1 lb
White glazed tiles (6" × 6" × ¼")	small quantity	17/9 sq yard
Do. rounded on one edge	small quantity	21/3 do.
Do. on two adjoining edges	small quantity	26/– do.

PLUMBER'S GOODS

4 lb lead sheet (in 1-ton lots)	142/3 per cwt
Lead water pipe in coils (do.)	143/6 do.
Plumber's solder	3/6 lb
Copper tacks	6/9 do.

IRON SOIL AND WASTE PIPE. (5cwt. lots and up)

each	2in	3in	3½in	4in
⅛in Medium pipe, 6ft length	14/6	17/2	19/3	21/11
Ditto, 4ft length	10/5	12/2	13/7	15/5
Bends	5/4	6/6	8/1	9/1
Ditto, with oval door	17/4	18/6	21/1	24/7
Junction, single	6/6	9/8	11/3	13/3
Ditto, with oval door	18/6	21/8	24/3	26/3
Swan necks, 4½in	6/6	10/3	11/9	13/9
Ditto, 9in.	8/8	11/9	13/9	16/1
Holderbat, 2½in projection	4/11	5/1	5/4	5/6

Above plus 2½%

GALVANIZED CISTERNS, TANKS AND CYLINDERS—(Less than four)

each gallons	Nominal capacity			
CISTERNS—	100	150	200	300
Bends over tops and corner plates. Riveted or welded—				
14 gauge	164/–	223/–	270/–	387/–
12 ditto	190/–	241/–	298/–	416/–
¼in plate	225/–	283/–	335/–	476/6
HOT WATER TANKS—	20	25	30	40
Riveted and with handhole and ring.				
12 gauge	113/–	125/6	137/–	164/–
¼in plate	126/–	137/–	149/–	182/–
HOT WATER CYLINDERS—	20	25	33	39
Riveted, with handhole and ring.				
12 gauge	144/–	161/–	175/–	187/–
¼in plate	161/–	179/–	195/–	208/–

PLUMBER'S BRASSWORK, etc. Each

	½in	¾in	1in	1¼in
Boiler screws, single nut	1/6	2/–	3/4	4/11
Ditto double nut	2/1	2/9	4/6	6/8
Cap and lining	1/1	1/6	2/–	2/3
Plumber's unions	2/5	3/–	4/3	7/6
Ball valves, screwed iron	14/–	21/–	—	—
Ditto, fly nut and union	15/–	23/6	—	—
Bib valves, crutch top screwed iron	9/9	13/9	—	—
Ditto, but screwed boss	10/10	15/4	—	—
Stop valves, screwed iron	8/3	11/9	—	—
Ditto, screwed iron and union	9/9	14/6	23/6	—
Ditto, double union	10/3	15/9	26/–	—
Waste, plug chain and stay	—	—	7/–	8/–
	1½in	1½in	2in	4in
Caps and screws	2/9	3/3	5/–	—
Sleeves, long	—	—	7/–	11/–
Ditto, short	—	3/6	4/3	6/9
Thimble	—	4/–	5/–	10/7
Full way gate valves, hot pressed	20/–	28/–	—	—
		1¼in	1½in	2in
Lead 7 lb P. trap		6/11	9/1	12/10
Ditto, S. trap		8/7	11/3	15/9
Lead 6 lb. P. traps with 3in seal		7/9	9/4	—
Ditto, but S. traps ditto		9/7	11/9	—

Wire ballon guards, copper, 2in. 3/-; 4in 3/3.
Ditto, galvanized iron, 2in 1/10; 4in 2/-.
Hair felt, 34in × 20in, 24 oz., 6/- sheet.
Boss white jointing compound, 2/- lb.
Gaskin, 1/5½ lb. Hemp, 7/3 lb.

COPPER TUBES—Extract from B.S. 659/1944—

Nominal bore	Internal work (semi-hard). Outside diameter inch	Gauge	Weight lb per ft	3 Cwts lots Price per lb pence	Price per ft pence
¼in	0·596	19	0·27	54½	14·62
⅜in	0·846	19	0·39	52½	20·48
1in	1·112	18	0·62	51	31·62
1¼in	1·362	18	0·76	50½	38·29
1½in	1·612	18	0·91	50½	45·85
2in	2·128	17	1·40	52	72·8

CAPILLARY TYPE CONNECTIONS—
All ends copper to copper.

Each	½in	¾in	1in	1¼in	1½in	2in
Straight	1/9	2/5½	3/10¼	5/1	6/10	9/9½
Bends	4/6½	5/7½	8/1	11/1	17/4	24/4
Tees	4/2½	4/11	7/11	11/7	16/6	24/4
Brackets (Brass)	2/2½	2/4½	2/7½	—	—	—

GLASS

	Per foot superficial 24 oz.	26oz.	32oz.
English, flat drawn sheet glass cut to sizes in squares	7½*d.*	10*d.*	1/1
Figured rolled and cathedral, white, cut to sizes, in squares (½in)	9*d* Per foot super		
Ditto but in standard tints	1/4½	Do.	
½in Rolled, cut to size, in squares	9*d.*	Do.	
½in or ⅞in rough cast ditto	1/–	Do.	
½in Ditto wired ditto	1/2	Do.	
Georgian wired ditto	1/2½	Do.	
Fluted (No. 4) ditto	1/1½	Do.	
Reeded (narrow, broad, cross and major) ditto	1/1	Do.	
Reedlyte (narrow and broad) ditto	1/1	Do.	
Spotlyte ditto	1/1	Do.	
½in Calorex Cast ditto	1/2½	Do.	
Calorex Sheet (15oz.)	6/6	Do.	
Ditto (21oz.)	9/–	Do.	
Flashed Opal (15/18oz.)	3/7	Do.	
Pot Opal (15/18oz.)	3/7	Do.	

POLISHED PLATE GLASS (Tariff). Cut to sizes.
Ordinary substance approximately ¼in thick.
Per superficial foot.

	Qualities General Glazing	Selected Glazing	Silvering
In plates not exceeding:			
2ft super in each	3/7	4/3	5/1
5ft ditto	4/5	5/2	6/2
45ft ditto (unless extra sizes)	5/1	5/9	6/11
100ft ditto (ditto)	5/6	6/9	8/10

Extra sizes, i.e., Plates exceeding 100ft super or 96in high or 160in wide at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	37/6	Gallon
Distemper, ceiling	35/–	Cwt
Distemper, washable	120/–	do.
Enamel	60/–	Gallon
Gold Metallic Paint	86/6	do.
Heat Resisting Paint	50/–	do.
Japan, black	23/6	do.
Knotting	40/–	do.
Linseed Oil	13/6	do.
Boiled, ditto	14/–	do.
Proprietary Paints (good class)—		
Finishing	47/–	do.
Priming	50/–	do.
Undercoat	53/–	do.
Paperhanger's Paste	34/6	Cwt
Petrifying liquid	8/9	Gallon
Putty	51/–	Cwt
Size	9/3	Firkin
Terebine	16/–	Gallon
Turpentine substitute	6/3	do.
Varnish, oak, copal, inside use	33/–	do.
Ditto, ditto, outside use	38/–	do.
Ditto, white, eggshell, flat	44/6	do.
White lead mixed paint	62/–	do.
White lead	178/–	Cwt
Whiting	12/6	Cwt

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MARLEY

wall tiles

★ Thermoplastic and flexible
★ Easily fixed with adhesive
★ In a range of pastel shades with decorative strips and angles in stronger colours
★ Standard size 4½" × 4½" × ⅛"

Ask our representative to call and show you samples

The Marley Tile Company Ltd., Riverhead, Sevenoaks, Kent Sevenoaks 2251

important development

in the Semastic Decorative Tile range

Lighter shades now contain Polyvinyl Chloride Resin

To impart extra versatility to the Semastic Decorative Tile range and to meet the demand for a vinyl type thermoplastic tile of moderate cost, the manufacturers announce the introduction of polyvinyl chloride resin into the top colour series. These new tiles are offered as an alternative to the existing range in this Semastic Decorative Tile series. The colours concerned and depicted here are to be identified in future as VINYLEX patterns of the Semastic Decorative Tile range. This development permits:—

(a) A still greater resistance to wear and tear.
(b) An improved resistance to the effects of oils and grease, acidic materials, alkalis and alcohol.
(c) An installation over approved wooden sub-floors.
(d) Even clearer and brighter colours.

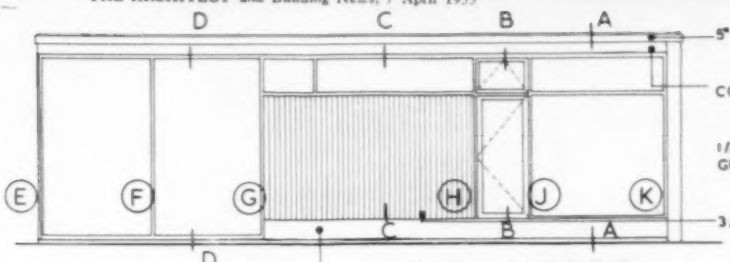
Semastic VINYLEX patterns do not supersede the superb monochromatic range of Semastic Vinyl Asbestos tiles. This Vinyl Asbestos range is distinctive for its suitability as a high-grade decorative floor finish withstanding service conditions of extraordinary severity.

SEMASTIC
decorative tiles
incorporating the VINYLEX patterns
A product of a Dunlop Company

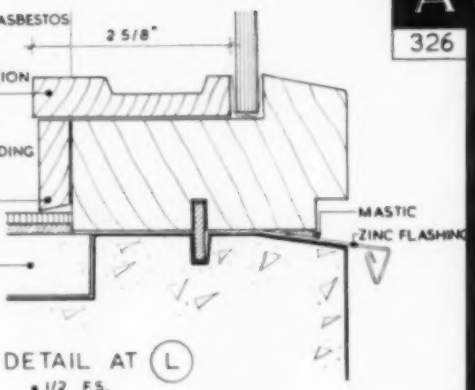
1 Sand Marble V5QM
2 Cordova Blue Marble V5AM
3 Regent Beige Marble V5WM
4 Platinum Marble V5DM
5 Mermaid Green Marble V5YM
6 Elmwood Marble V5ZM
7 Regency Cream Marble V5EM

Semastic Floor Tiles are installed by:

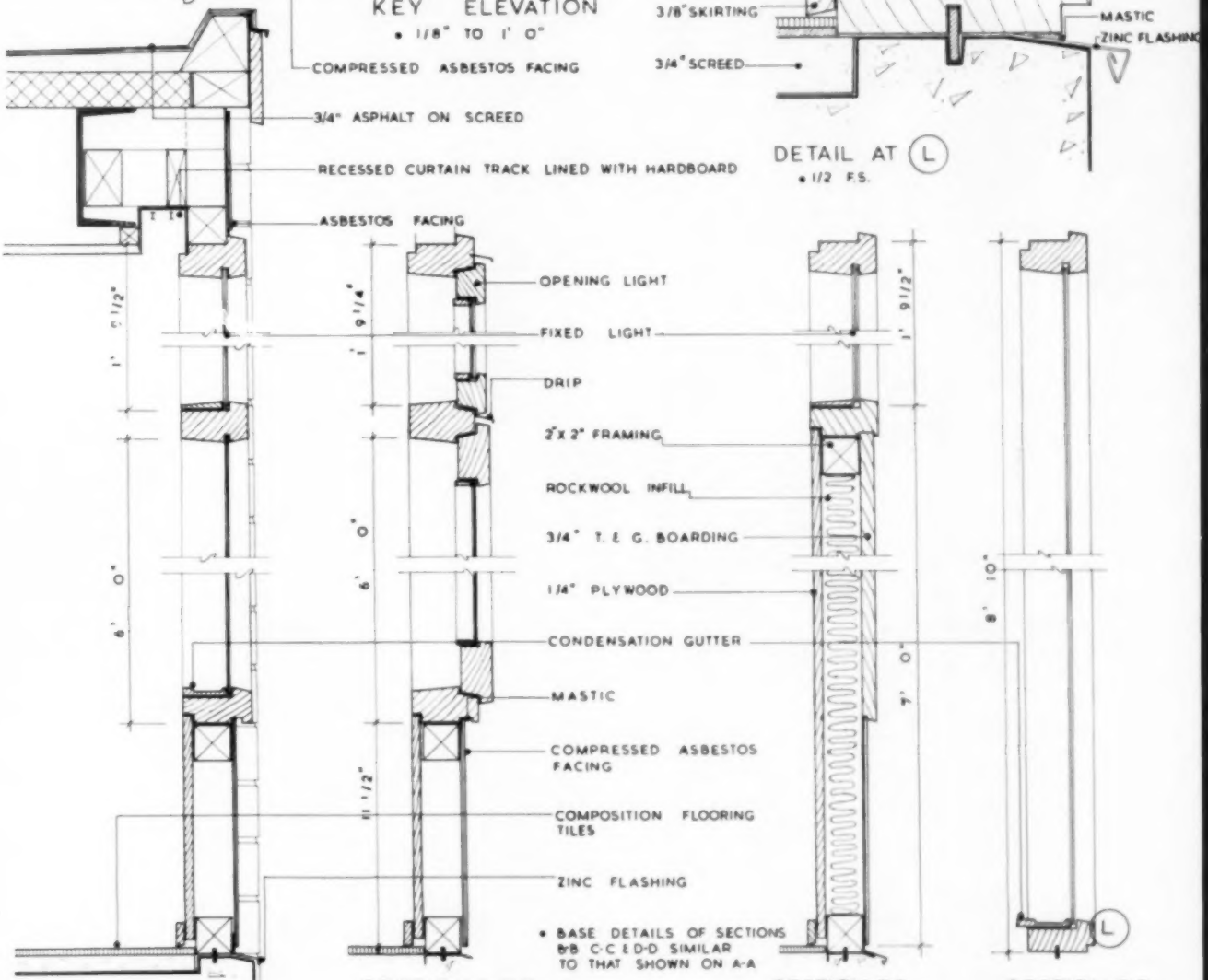
J. A. Hewetson & Co. Ltd.
Hollis Bros. Ltd.
Hornsey Smith & Co. (Hayes) Ltd.
Pilkington's Asphalte Co Ltd.
Semtex Ltd
The Trinidad Lake Asphalt Co. (North Western) Ltd.
The Limmer & Trinidad Lake Asphalt Co. Ltd.
The Western Trinidad Lake Asphalt Co. Ltd.



KEY ELEVATION
• 1/8" TO 1' 0"



DETAIL AT (L)
• 1/2 F.S.

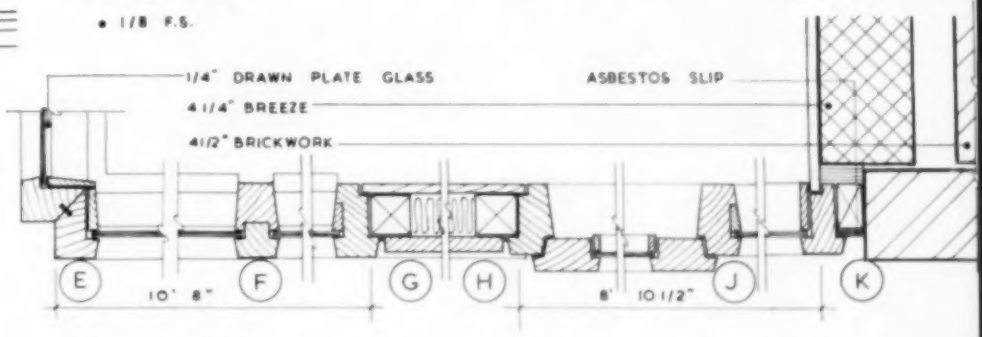


SECTION B-B
• 1/8 F.S.

SECTION C-C

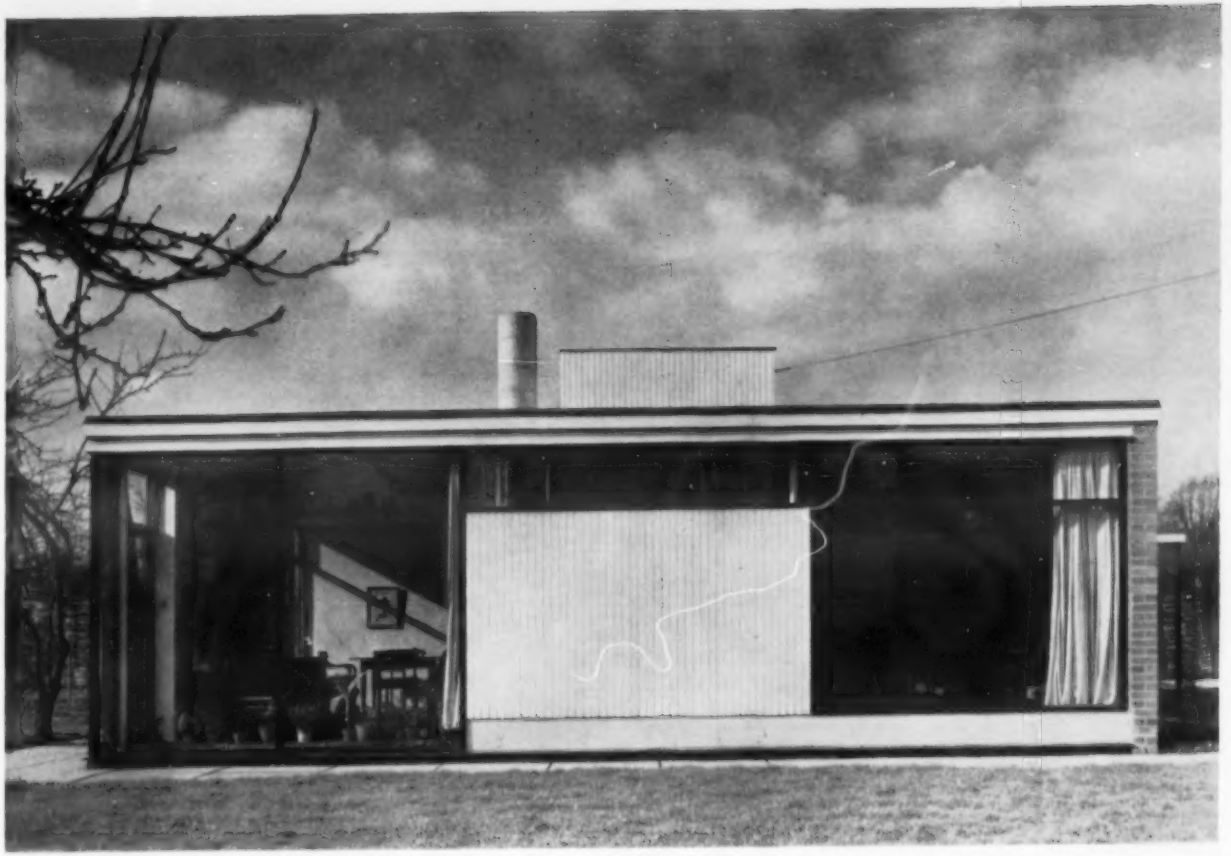
SECTION D-D

SECTION A-A



PLAN DETAILS • 1/8 F.S.

THE ARCHITECT and Building News, 7 April 1955

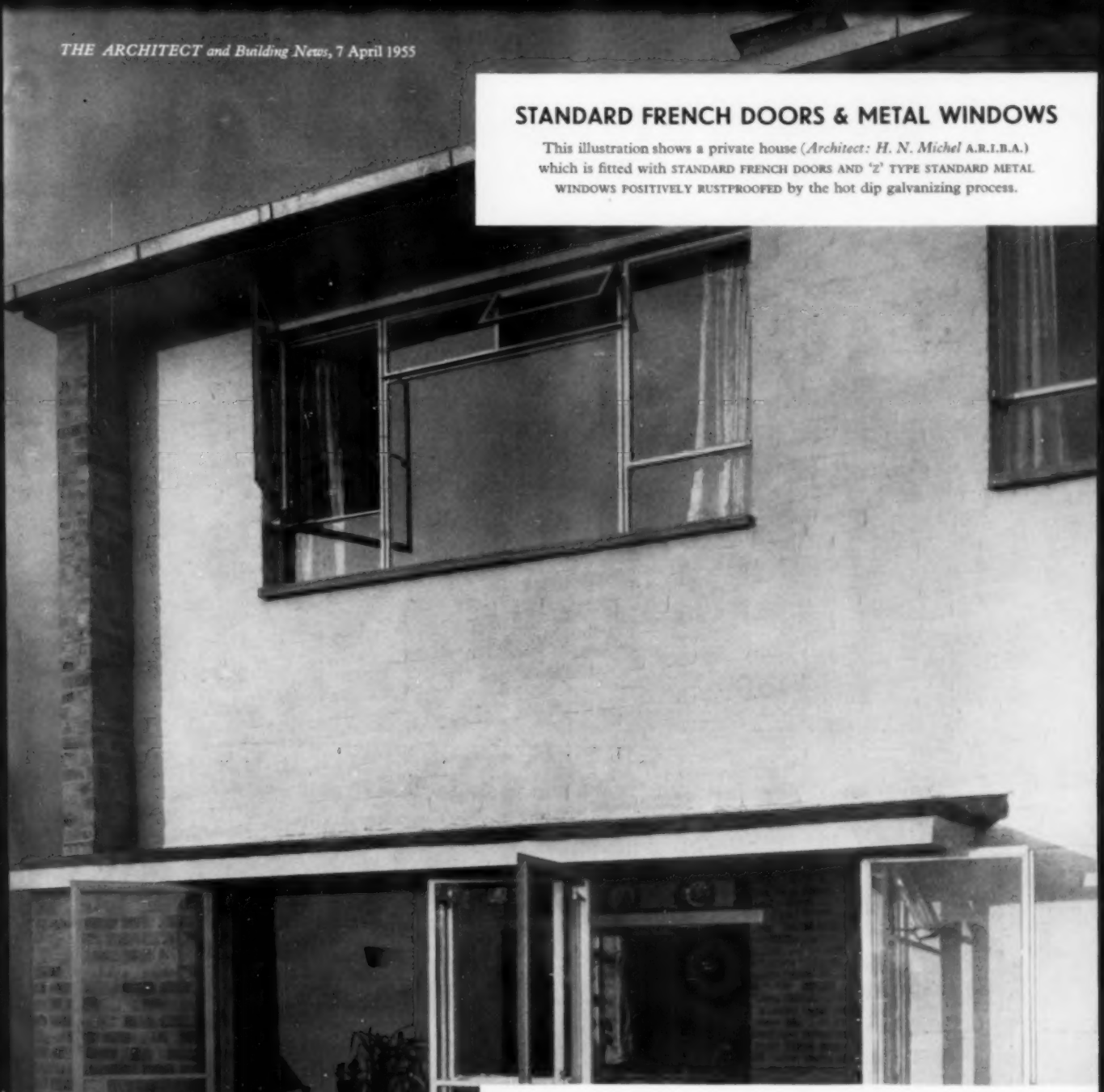


WINDOW DETAILS: HOUSE AT HAM

ARCHITECTS: JAMES CUBITT & PARTNERS

STANDARD FRENCH DOORS & METAL WINDOWS

This illustration shows a private house (*Architect: H. N. Michel* A.R.I.B.A.) which is fitted with STANDARD FRENCH DOORS AND 'Z' TYPE STANDARD METAL WINDOWS POSITIVELY RUSTPROOFED by the hot dip galvanizing process.



Whether the enquiry is large or small, whether for a private house in a remote part of the country or a block of flats on the outskirts of the city, the service provided by Crittall's has one common, constant, aim. It is, simply, that at every stage – in planning, manufacture, and delivery – no effort shall be spared to provide the best – in line with the established Crittall reputation.

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RT/LY Sink Pillar "Y" Bibcock.

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★ NEW CUSHIONED NYLON WASHERS (prov. pat.) last more than five times as long as ordinary washers.

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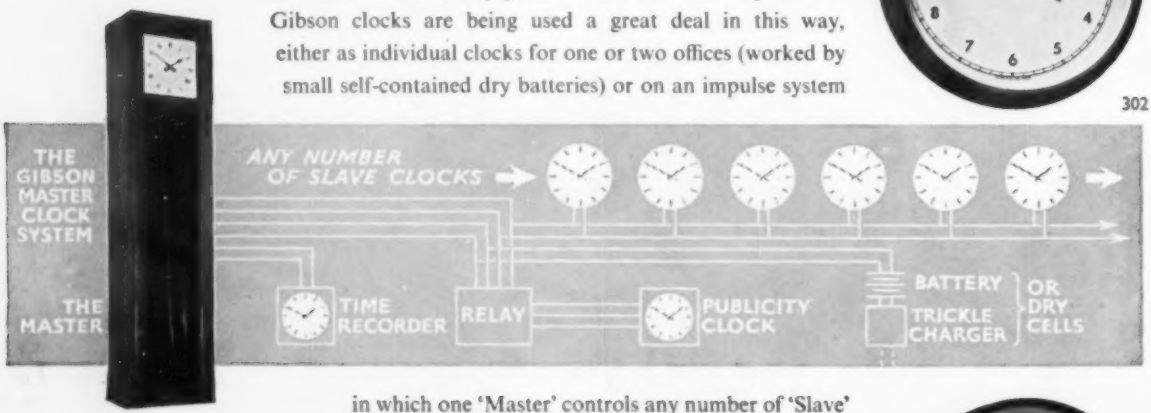
RT/B Bath Model

F. H. BOURNER & CO. (Engineers), LTD., Dept. KS/2, Manor Royal, Crawley, Sussex.
Telegrams: SUPATAPS CRAWLEY. *Telephone:* CRAWLEY 1312-3-4.

PLAN for CLOCKS In the newest and best buildings the clocks are regarded both as architectural features and essential amenities; they go in before the walls are plastered. Gibson clocks are being used a great deal in this way, either as individual clocks for one or two offices (worked by small self-contained dry batteries) or on an impulse system

302



in which one 'Master' controls any number of 'Slave' clocks. This method is very accurate and has the advantage of being independent of power fluctuations. Available designs are good—specific designs can be carried out.

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CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

OPEN

BUILDING

BRIGHTON B.C. (a) Block of 6 garages and 3 maisonnettes, Sylvan Hall Estate. (b) Borough Engineer, 26-30, King's Road. (c) 2gns. (e) April 30.

* * *

CARDIGANSHIRE C.C. (a) Garage at Brynhoffnant Police Station. (b) County Architect, County Hall, Aberayron. (e) April 19.

* * *

CORNWALL C.C. (a) Dwelling house and farm buildings, installation of water supply, and construction of access roads and fencing, St. Pennans, Creed. (b) County Land Agent, 2, Strangways Terrace, Truro. (c) 2gns. (e) April 30.

* * *

CORNWALL C.C. (a) Division of a farmhouse at Coswinsaw sen Farm, Gwinear, into 2 dwellings. (b) County Land Agent, 2, Strangways Terrace, Truro. (e) April 30.

* * *

DERWENT U.C. (a) One pair of houses, Fordlands Crescent, Fulford. (b) E. Vyvyan Hunter, 9, Minster Yard, York. (c) 2gns cheque payable to Council. (e) April 16.

* * *

EGHAM U.C. (a) Conversion of "Ashdene," St. Jude's Road, Englefield Green, into 7 flats, together with external redecoration work. (b) Council's Engineer, Fire Station Buildings, High Street. (c) 2gns. (e) April 23.

* * *

FRINTON AND WALTON U.C. (a) Construction and erection of (1) brick and tiled shelter at Marine Gardens, The Parade, Walton-on-Naze; (2) brick and tiled shelter at Jubilee Ground, Naze Park Road, Walton-on-Naze; (3) timber-framed, shingle-roof shelter at Greensward, near The Crescent, Frinton-on-Sea. (b) Council's Engineer, The Council House, Frinton-on-Sea. (c) £1 each shelter. (e) April 18.

* * *

GLASTONBURY B.C. (a) 16 flats in blocks of 4 and 4 houses, Windmill Hill Estate. (b) D. A. J. Comfort, 66, High Street. (c) 2gns. (e) April 22.

* * *

HATFIELD R.C. (a) 91 houses and 21 garages, Redhall Farm site. (b) J. H. Parker, 82, Great North Road. (c) 5gns. (e) May 3.

* * *

LEICESTER C.C. (a) Erection of a junior school at Overdale Road, South Knighton, Leicester. (b) Messrs. Symington, Prince and Pike, De Montfort House, De Montfort Square, Leicester. (c) £3. (e) April 26.

* * *

LEICESTER CITY WATCH COMMITTEE. (a) Erection of a District Police Sub-Station at Welford Road, Leicester. (b) City Architect, 10, Loseby Lane. (c) £1. (e) April 15.

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and THE QUAY EXETER
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LIVERPOOL C.C. (a) Construction of Edge Hill School, Durning Road, Liverpool 7. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway, 2. (c) 2gns. (e) April 16.

• • •

LLANDUDNO U.C. (a) Supply and erection of Happy Valley Café building. (b) Council's Engineer, Town Hall. (e) April 18.

• • •

MIDDLESBROUGH B.C. (a) Erection of St. Anthony's R.C. School, near Town Farm Estate. (b) Director of Education, Education Offices, Woodlands Road. (c) 5gns. (d) April 9. (e) May 6.

• • •

MIDDLETOWN RECREATION COMMITTEE. (a) Erection of a village hall at Middletown, near Welshpool. (b) D. Mervyn Edwards, 5, Lower Brook Street, Oswestry. (c) 3gns cheque. (d) April 9.

• • •

N. IRELAND—ANTRIM. (a) Erection of a factory at Ballymena for the Ministry of Commerce. (b) Ministry of Commerce (Room 28), Chichester House, Chichester Street, Belfast. (c) £5. (e) April 25.

• • •

N. IRELAND—ANTRIM COUNTY E.C. (a) Erection of proposed intermediate school at Warren Gardens, Lisburn. (b) Messrs. W. H. Stephens and Sons, 13, Donegall Square North, Belfast. (c) 5gns. (e) May 17.

• • •

N. IRELAND—ANTRIM COUNTY E.C. (a) Erection of proposed intermediate school at Black's Road, Dunmurry. (b) Messrs. Craig and Parks, 14, High Street, Belfast. (c) 5gns. (e) April 25.

• • •

N. IRELAND—BELFAST. (a) Reconstruction of Templemore Avenue branch library, Belfast. (b) Messrs. W. H. Stephens and Sons, 13, Donegall Square North, Belfast. (c) 5gns. (e) April 28.

• • •

OSWESTRY JOINT BURIAL COMMITTEE. (a) Extending the Cemetery Superintendent's house. (b) M. B. Jones, 55, Liverpool Road. (e) April 20.

• • •

RAYLEIGH U.C. (a) 12 bungalows, Eastwood Road. (b) Council's Engineer, Council Offices, Hockley Road. (c) 3gns. (e) April 23.

• • •

RINGWOOD AND FORDINGBRIDGE R.C. (a) 6 pairs of houses, 1 block of 4 houses and 1 pair of bungalows, together with ancillary drainage and site works, Warnes Lane, Burley. (b) Frank Andrews, 45, High Street, Ringwood. (c) 2gns cheque. (e) April 30.

• • •

SCOTLAND—MIDLOTHIAN C.C. (a) Alterations at Rosewell School. (b) County Architect, 32, Palmerston Place, Edinburgh 12.

• • •

TEIGNMOUTH U.C. (a) Erection of a block of 14 maisonettes and 7 flats, and a block of 16 maisonettes, in Bitton Street and Gloucester Road. (b) Messrs. Louis de Soissons, Peacock, Hodges, Robertson and Fraser, 5, Portland Square, Plymouth. (c) 3gns cheque payable to Council. (d) April 15.

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WALSALL CORPORATION. (a) 3 shops, with living accommodation, Reservoir Street, Alum Well Road Estate. (b) Borough Engineer, Council House. (c) 2gns. (e) May 2.

• • •

WALSALL CORPORATION. (a) Public convenience at the Centre Green, Arboretum. (b) Borough Engineer, Council House. (c) 2gns. (e) April 15.

• • •

WEST SUFFOLK C.C. (a) 4 bungalows and 3 ranges of farm buildings at the Grange Farm, Feisham, Bury St. Edmunds. (b) County Land Agent, Shire Hall, Bury St. Edmunds. (e) April 15.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

SOUTHEND B.C. (1) Erection of girls' high school. (3) Prestige and Co., Ltd., Cambridge Wharf, Grosvenor Road, London, S.W.1. (4) £218,423. (1) Extensions to Municipal College. (3) J. Jarvis and Sons, Ltd., 239, Vauxhall Bridge Road, London, S.W.1. (4) £169,588. (1) Special school. (2) Leigh-on-Sea. (3) Hosking and Son (Essex), Ltd., Arterial Road, Rayleigh, Essex. (4) £38,835.

• • •

CANTERBURY. (1) Assembly hall for King's School. (3) G. E. Wallis and Son, Broadmead Works, Maidstone, Kent. (4) £80,000.

• • •

HULL CORPORATION. (1) 195 dwellings. (2) Longhill Estate. (3) Scruton and Co. (Builders), Ltd., Leonard Street, Hull.

• • •

LEEDS CORPORATION. (1) 48 flats in blocks. (2) Roundhay. (3) George Wimpey and Co., Ltd., 26, Hammersmith Grove, London, W.6. (4) £83,528.

• • •

NORFOLK COUNTY E.C. (1) Secondary school. (2) Methwold. (3) H. C. Greengrass and Sons, Ltd., Hellesden, Norwich. (4) £128,661. (1) Secondary school. (2) Sheringham. (3) H. G. Lomax and Son, Ltd., Sprowston, Norwich. (4) £128,828.

• • •

KINGSTON-ON-THAMES. (1) Erection of a store for C. and A. Modes, Ltd. (2) Century-Elite Cinema site. (3) McLaughlin and Harvey, Ltd., 24 Highbury Grove, London, N.5. (4) £160,000.

• • •

LANCASHIRE C.C. (1) Erection of St. Ann's R.C. school. (2) Ormskirk. (3) Unit Construction Co., Ltd., Speke Boulevard, Speke, Liverpool. (4) £130,286. (1) St. Laurence's school. (2) Kirkby. (3) Unit Construction Co., Ltd. (4) £120,044. (1) St. Mary's school. (2) Leyland. (3) John Turner and Son (Preston), Ltd., William Henry Street, Preston. (4) £104,000. (1) St. Aidan's school. (2) Huyton-with-Roby. (3) Tysons (Contractors), Ltd., Dryden Street, Liverpool. (4) £39,437.

• • •

SUNDERLAND. (1) Bus station and depot, for Northern General Transport Co., Ltd. (3) Gordon Durham and Co., East Boldon, Co. Durham. (4) £100,000.

BOLTON CORPORATION. (1) 160 houses. (2) Breightmet Estate. (3) Direct Labour. (4) £188,604.

* * *

PLUMSTEAD, LONDON. (1) Erection of All Saints' Church. (3) Thomas and Edge, Ltd., 25, Greens End, Woolwich, S.E.18. (4) £48,478.

* * *

CARDIFF CORPORATION. (1) Air terminal, café, etc. (2) Wood Street. (3) Direct Labour. (4) £114,000.

* * *

SWANSEA CORPORATION. (1) Workshop block. (2) Technical College. (3) Bennett Bros., Ltd., Carlton Terrace, Swansea. (4) £48,436.

* * *

BIRMINGHAM CORPORATION. (1) Junior school. (2) West Heath. (3) A. Pearce and Sons (Building Contractors), Ltd., Victoria Street, Birmingham, 9.

* * *

EAST SUSSEX C.C. (1) First stage of technical institute. (2) Lewes. (3) Saunders (Contractors), Ltd., London Road, Burgess Hill, Sussex. (4) £62,647.

* * *

HAINAULT, ESSEX. (1) Factory for Advance Components, Ltd. (3) E. J. Robinson, Ltd., 6, Station Chambers, Brownlow Road, London, N.11. (4) £40,000.

* * *

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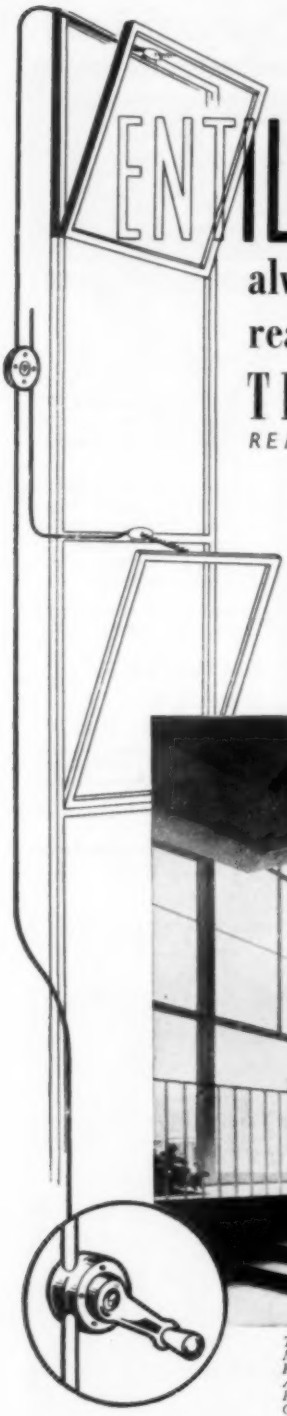

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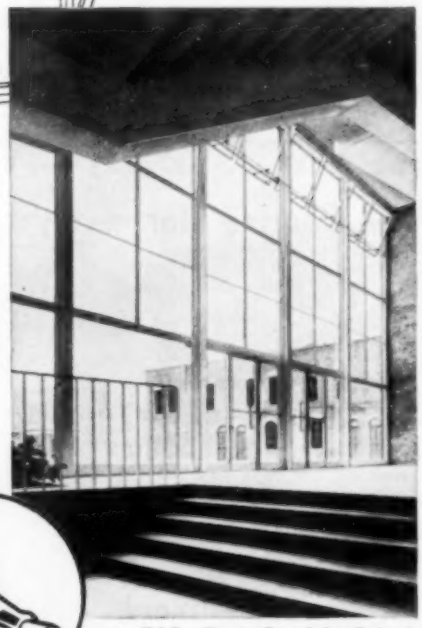

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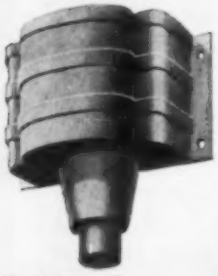

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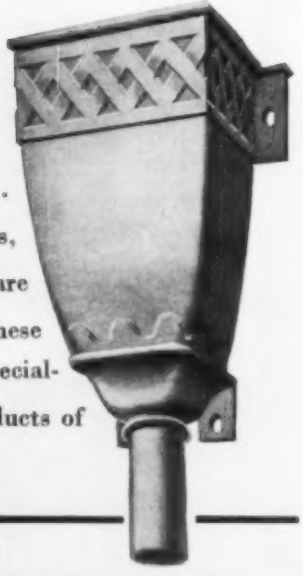

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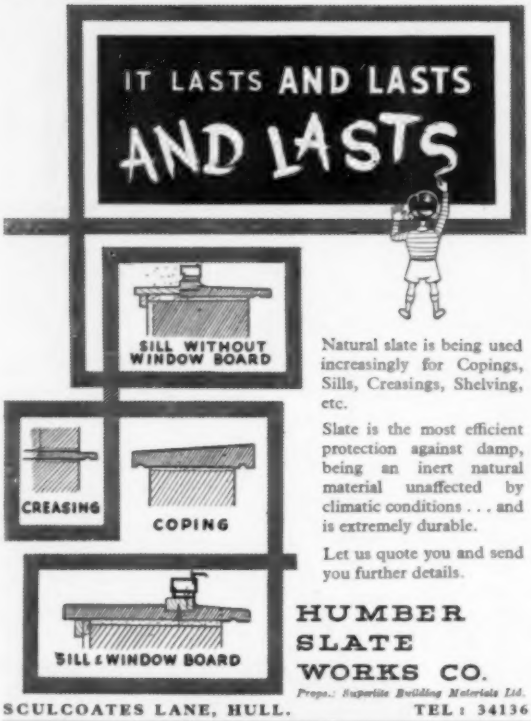

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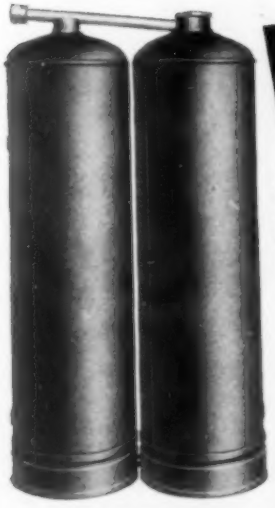

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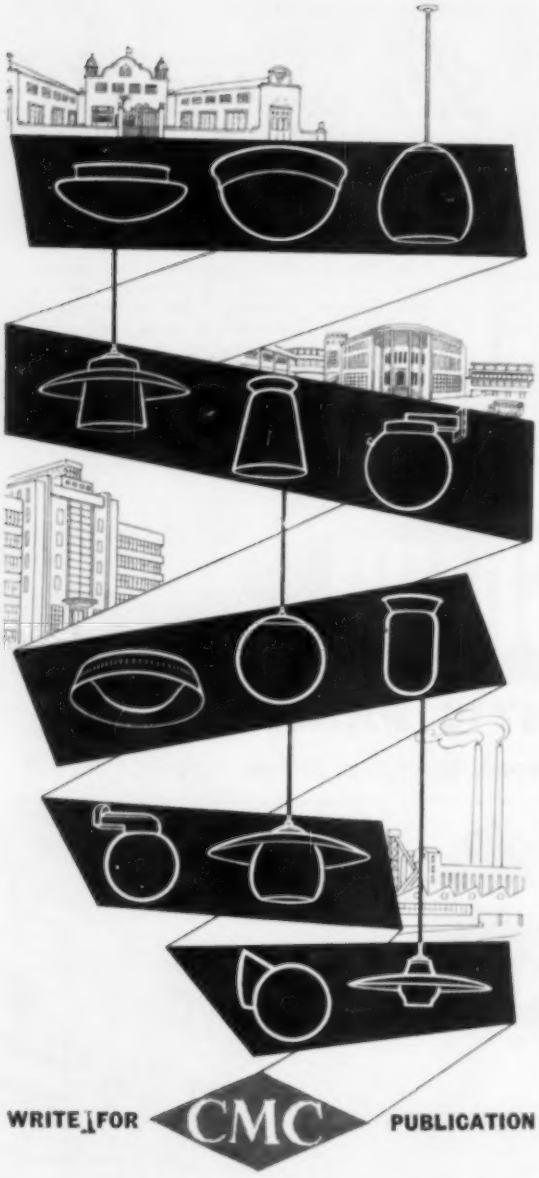

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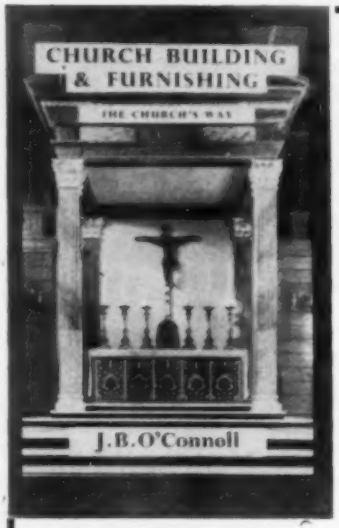

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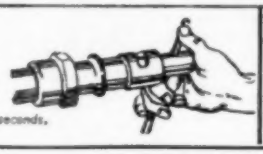

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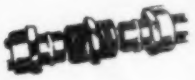

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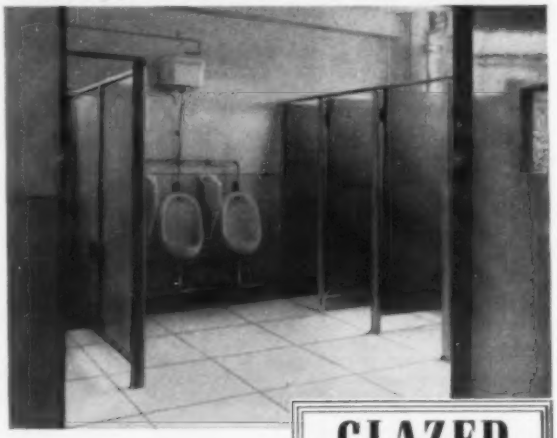

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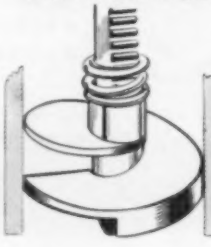

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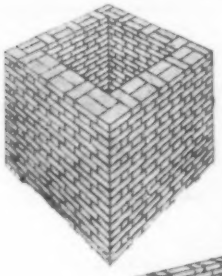

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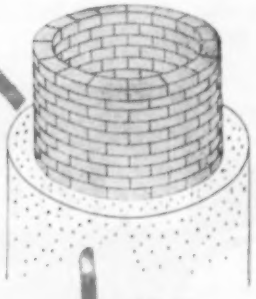

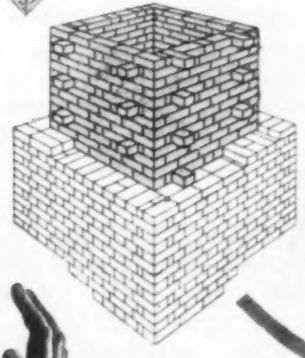

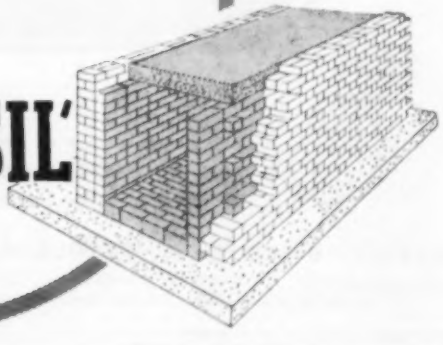

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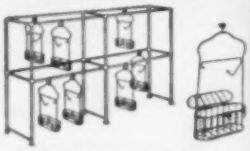

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OFFICIAL ANNOUNCEMENTS

APPOINTMENTS • CONTRACTS • TENDERS

Rate 1/6 per line, minimum 3/- *Close for press 1st post Monday for following Thursday Issue*

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

AYCLIFFE DEVELOPMENT CORPORATION.

ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for this appointment at a salary in accordance with Grade A.P.T. III (£600 × £25—£725 p.a.).

Appointment subject to N.J.C. Conditions, Superannuation and medical examination.

Housing accommodation if required.

Preference given to applicants who have passed the R.I.B.A. Intermediate Examination.

Applications stating age, qualifications and experience together with names of two referees to arrive not later than Saturday, April 16th, 1955.

(Sgd.) A. V. WILLIAMS,
General Manager.

Newton Aycliffe,
Co. Durham. [8980

COUNTY BOROUGH OF ST. HELENS.

APPLICATIONS are invited for the appointment of TWO SENIOR ARCHITECTURAL ASSISTANTS in the Borough Engineer's Department within the new A.P.T. Grade IV (£675—£825), commencing salary according to qualifications and experience.

Applicants should be Registered Architects, preferably holding a recognised architectural qualification.

Housing accommodation will be made available if required by the successful candidates.

The appointment will be terminable by one month's notice and will be subject to the Local Government Superannuation Acts and medical examination and N.J.C. service conditions.

Candidates must, when making application, disclose in writing whether to their knowledge they are related to any member of the Council or to a holder of any senior office under the Council.

Applications stating age, qualifications, present and past appointments and details of experience accompanied by copies of three recent testimonials must be forwarded to M. Ward, M.I.Mun.E., A.M.T.P.I., Borough Engineer, not later than Monday, April 25, 1955.

Canvassing in any form will be deemed a disqualification.

Town Hall,
St. Helens. [8974

LANCASHIRE COUNTY COUNCIL.

PRINCIPAL ASSISTANT ARCHITECT, £1,307 10s × £52 10s—£1,517 10s. Duties: Helping Assistant County Architect with the administration of the General Branch which has a staff of 25 architects and deals with all work except Education; occasional attendance at Committee meetings and supervision of design in the drawing office. The latter is a most important duty and requires a flair for design much above the average. There is a large and interesting programme of work including Police Stations and Courts, Fire Stations, Hostels for the Aged, Clinics, etc. Application forms, from the County Architect, P.O. Box No. 26, Preston, to be returned by Monday, April 18, 1955, quoting Ref. A/ABN. [8949

THE Department of Health for Scotland. Chief Architect's Office. Applications are invited for non-pensionable posts of Assistant Architect. Headquarters Edinburgh. Age 25-34. Salary range £660—£1,015 (Women £905). Duties include housing, school building (including research and development), health buildings, etc.

Further particulars and application form from Establishment Officer, Department of Health for Scotland (Room 30), St. Andrew's House, Edinburgh, 1. Closing date for applications April 21, 1955. [8953

APPOINTMENTS—contd.

SOUTHPORT AND DISTRICT WATER BOARD.

APPLICATIONS are invited for the appointment of an ARCHITECTURAL DRAUGHTSMAN at a salary on A.P.T. Grade II (£560—£640 per annum).

The appointment is for a period of not less than three years subject to satisfactory service.

Applicants must be competent draughtsmen having experience of building design and construction.

Applications, stating age, experience, qualifications, present and past appointments and accompanied by copies of two recent testimonials, should reach the Engineer and Manager, 14, Portland Street, Southport, not later than Tuesday, April 19, 1955.

R. EDGAR PERRING,
Clerk to the Board. [9004

COUNTY BOROUGH OF DUDLEY.

(a) ASSISTANT ARCHITECT, GRADE IV (£675-£825).

(b) ASSISTANT ARCHITECT, SPECIAL GRADE (£650-£775).

APPLICATIONS are invited for the above appointments on the Staff of the Borough Architect.

Applications for both appointments shoud be Associate members of the Royal Institute of British Architects.

Applications, together with copies of not less than two recent testimonials, to reach me by Thursday, April 14th, 1955.

P. D. WADSWORTH,
Town Clerk.

The Council House,
Dudley.
March 25th, 1955. [8986

BOROUGH OF TOTTENHAM.

APPLICATIONS are invited for the following posts:—

(A) ARCHITECTURAL ASSISTANT (Established), A.P.T. Grade I or II (£500 to £580 or £560 to £640 plus London Weighting).

(B) ARCHITECTURAL ASSISTANT (Unestablished), A.P.T. Grade I or II (£500 to £580 or £560 to £640 plus London Weighting).

Applicants must have passed R.I.B.A. Intermediate Examination. Grading according to experience. N.J.C. Conditions. Application form and general conditions of appointment from Borough Engineer (A.B.N.), Town Hall, N.15, to whom applications must be delivered not later than April 18, 1955. [9000

BOROUGH OF CHELTENHAM.

APPOINTMENT OF TWO SENIOR ARCHITECTURAL ASSISTANTS.

APPLICATIONS are invited for the above appointments (salaries within Grade A.P.T. IV —£675 to £825 per annum) on the Capital Works Establishment.

Applicants must be Associate Members of the R.I.B.A., or equivalent, and experienced in the design of Public Buildings, Housing and Ancillary Buildings in connection with Estate Development.

The appointments are subject to the National Conditions of Service; to the Superannuation Acts; and to a medical examination, and will be terminable by one month's notice on either side.

Applications, endorsed "Senior Architectural Assistant," stating age, training, qualifications and experience of present and previous appointments, and giving the names of two referees, are to reach Mr. G. Gould Marsland, M.B.E., B.Sc., M.Inst.C.E., Borough Surveyor, Municipal Offices, Cheltenham, not later than Monday, April 18, 1955.

F. D. LITTLEWOOD,
Town Clerk.

Municipal Offices,
Cheltenham.
March 26, 1955. [9001

APPOINTMENTS—contd.

RICKMANSWORTH URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the above permanent appointment in the Engineer and Surveyor's Department. Salary Grade A.P.T. II (£560—£640). Applicants must be experienced in the preparation of plans and specifications with particular reference to the design of Council Houses. Applicants must state whether they wish the Council to provide housing accommodation and any such request will be considered. Applications endorsed "Architectural Assistant," giving the names and addresses of two referees, to be delivered to the undersigned not later than Wednesday, April 20, 1955.

C. R. RANSOME WILLIAMS,
Clerk of the Council.

Council Offices,
Rickmansworth,
Herts.
March 29, 1955. [9005

GOVERNMENT OF NORTHERN IRELAND.

VACANCY FOR ARCHITECT.

APPLICATIONS are invited for the unestablished post of Assistant Architect Class II in the Works Directorate, Ministry of Finance.

The salary scale which attracts pay supplement of amounts between £25 and £35 per annum is £675 × £25—£750 × £30—£960 × £40—£1,000. The minimum is linked to age 26 plus an increment for each year above that age, subject to a commencing salary not exceeding £900 plus pay supplement of £30. An officer between 25 and 26 will be given an inclusive commencing salary of £675, and if under 25 will be paid according to qualifications and experience.

Candidates must be Registered Architects by examination, and must have had at least two years' experience in an Architect's Office in the preparation of working drawings for new buildings.

Preference will be given to a suitably qualified candidate who served in H.M. Forces during the 1914-18 or 1939-45 Wars, provided the Ministry is satisfied that such a candidate is, or within a reasonable time will be, able to discharge the duties of the post efficiently.

Application forms may be obtained from the Director of Establishments, Ministry of Finance, Stormont, Belfast, to whom they must be returned, with copies of two recent testimonials, so as to reach him not later than April 20th, 1955. [8997

UNIVERSITY OF SHEFFIELD.

APPLICATIONS are invited for the post of Maintenance Officer. Duties comprise maintenance of University buildings, heating, lighting and other services, control of porters, boilermen, cleaners and other maintenance staff.

Preference will be given to candidates who are qualified Engineers or Surveyors but it is essential that an Engineer should possess a thorough knowledge as well as suitable practical experience of building work and that a Surveyor should possess similar qualifications in respect of mechanical and electrical engineering services.

Initial salary £800-£1,000, in accordance with qualifications and experience, with superannuation benefits and family allowances. A period of probation may be required.

Further particulars can be obtained from the Bursar, The University, Sheffield, 10, to whom applications giving names of two referees should be sent by April 15th, 1955. [8992

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

VACANCIES for ARCHITECTS, Grade III (up to £892 10s), and ARCHITECTURAL ASSISTANTS (up to £739 10s), in Schools and Housing and General Divisions.

Particulars and application forms from Architect (AR/EK/A/3), County Hall, S.E.1. (1058). [0146

APPOINTMENTS—contd.

LINDSEY COUNTY COUNCIL EDUCATION COMMITTEE.

NORTH LINDSEY TECHNICAL COLLEGE.
Kingsway, Scunthorpe, Lincs.
Principal: F. C. JONES, B.Sc.(Eng.), A.M.I.Mech.E., A.M.I.E.E.

ONE Lecturer in Building subjects to take charge of the Department of Building and, subject to satisfactory service, to become Head of the Department when this receives official approval. Experience in teaching and in the building industry together with good qualifications are essential.

Further particulars and forms of application are obtainable from the Principal at the above address on receipt of a stamped addressed envelope. Completed applications must reach the Principal not later than April 16th, 1955.

F. J. BIRKBECK,
Director of Education.

P.O. Box 20,
County Offices,
Lincoln. [8995

NATIONAL COAL BOARD— EAST MIDLANDS DIVISION.

ARCHITECTS DEPARTMENT, MILTON STREET, NOTTINGHAM.

APPLICATIONS are invited for the following permanent and superannuated appointments. Superannuation rights under Local Authority Schemes are transferable.

S.V. 387—Architects Grade II.
Salary £600 × £25—£650 × £30—£900. Candidates should be Corporate Members of the R.I.B.A.

S.V. 388—Architectural Assistants Grade I.
Salary £525 × £25—£650 (exceptionally to £800). Candidates should be of R.I.B.A. Intermediate Standard and have had not less than 3 years' subsequent practical experience. Facilities are granted in certain circumstances to Assistants for part-time study at the Nottingham School of Architecture.

S.V. 389—Quantity Surveyor Grade I.
Salary £900 × £35—£1,200. Candidates should be Corporate Members of the R.I.C.S. with considerable experience.

The grade and point of entry into the above salary scales will depend on the qualifications and experience of the applicant.

The architectural work of the Department covers the design of Colliery Surface Buildings of all types required in the Division, including Workshops, Stores, Power Plants, Offices, Pithead Baths, Canteens, Medical Centres, Institutes and Recreation Buildings.

Applications, stating age, education, qualifications, present appointment and salary should be submitted within 14 days of publication to:—

The Secretary,
National Coal Board,
East Midlands Division,
Sherwood Lodge,
Arnold,
Notts.

Envelopes and applications should be marked with the appropriate S.V. reference number. Original testimonials should not be sent. [8996

BOROUGH OF WORTHING.

BOROUGH ENGINEER'S DEPARTMENT.

ASSISTANT QUANTITY SURVEYOR.

APPLICATIONS are invited for the above appointment at a salary in accordance with Grade A.P.T. II of the National Joint Council's Scale of Salaries, i.e. £560-£640 per annum.

Applicants should have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors, Sub-Section 3, and must be capable of and had experience in abstracting and building and measurement of works on site. Experience of taking off and in the settlement of final accounts would be an advantage.

The appointment will be subject to the National Scheme and Conditions of Service of Local Government Officers; to the Local Government Superannuation Act, 1953 and Local Government Superannuation (Benefits) Regulations 1954; and to the successful applicant passing satisfactorily a medical examination. The appointment will be terminable by one month's notice on either side.

The Council will assist in finding housing accommodation for the successful applicant if required.

Applications endorsed "Assistant Quantity Surveyor" stating age, status, qualifications, experience, present and past appointments with duties, and accompanied by copies of two testimonials, should be sent to the Borough Engineer, Town Hall, Worthing, not later than Friday, April 22nd, 1955.

ERNEST G. TOWNSEND,
Town Clerk.

Town Hall,
Worthing
24.3.55. [8994

APPOINTMENTS—contd.

ROXBURGH COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of ASSISTANT ARCHITECT. Salary scale Grades V(a) to VII, with placing within the scale according to qualifications and experience.

Candidates must be registered achitects and preferably members of the Royal Institute of British Architects.

The appointment is subject to the Local Government Superannuation (Scotland) Act, 1937, and to satisfactory medical examination.

Applications, accompanied by one copy each of three recent testimonials, should be lodged with the undersigned not later than April 23rd, 1955.

Canvassing, directly or indirectly in connection with the appointment will disqualify.

JAMES R. HUME,
County Clerk.

County Offices,
Newtown St. Boswells.
March 22nd, 1955. [8993

NIGERIAN COLLEGE OF ARTS, SCIENCE AND TECHNOLOGY.

(Principal: C. A. Hart, T.D., D.Sc., Ph.D., M.I.C.E., M.I.Mech.E., F.R.I.C.S., A.M.I.Struct.E.)

APPLICATIONS are invited for appointment as:—

LECTURER in BUILDING, to teach in following courses: Architecture, to level of Inter. R.I.B.A., Building Surveying, to level of Inter. R.I.C.S., Engineering, up to degree level. Candidates should be A.R.I.B.A., A.R.I.C.S., or A.M.I.Struct.E. Degree and teaching experience an advantage.

The College encourages research.

Salary scale, incl. overseas pay: £750-£1,560. Initial salary according to experience. Post is permanent and pensionable, but temporary appointment carrying gratuity and slightly higher salary might be made. Furnished house provided, rent £57-£129 p.a. according to salary. Free 1st class passages, once each way for each tour of service, for person appointed and wife: either passage allowance or maintenance allowance for up to two children under 18. Seven days' leave for each month's resident service. Tours of service normally 10-18 months.

For further information apply to Secretary, Advisory Committee on Colonial Colleges, 1, Gordon Square, London, W.C.1. Closing date for applications (six copies) 25th April, 1955. [9008

GLAMORGAN COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited from persons who possess the necessary qualifications and have had the requisite training and practical experience, as laid down by the N.J.C. for Local Authorities' staffs for the undermentioned permanent appointments:—

(a) SENIOR ASSISTANT ARCHITECTS, APT. VI (£825/1,000).
(b) SENIOR ASSISTANT ARCHITECTS, APT. V (£750/900).
(c) ARCHITECTURAL ASSISTANTS (Special Grade £650/775).
(d) ARCHITECTURAL ASSISTANTS, APT. II (£560/640).
(e) HEATING ENGINEERING ASSISTANTS, APT. V (£750/900), and APT. IV (£675/825).
(f) SENIOR ASSISTANT QUANTITY SURVEYORS, APT. VI (£825/1,000).
(g) QUANTITY SURVEYING ASSISTANT, APT. II (£560/640).
(h) JUNIOR ASSISTANTS FOR QUANTITY SURVEYING SECTION, HIGHER GENERAL DIVISION (£170/475).
(i) SENIOR LAND SURVEYOR, APT. V (£750/900).
(j) LAND SURVEYING ASSISTANTS, APT. II (£560/640).
(k) DRAUGHTSMEN — ARCHITECTURAL/ENGINEERING/SURVEYING, MISC. IV (£465/545).
(l) DIRECT LABOUR BUILDING ESTIMATOR, APT. IV (£675/825).
(m) DIRECT LABOUR BUILDING ESTIMATING ASSISTANT, APT. II (£560/640).
(n) ELECTRICAL ENGINEERING ASSISTANT, APT. II (£560/640).

Applications giving details as to age, qualifications, training and practical experience, together with two recent testimonials to be forwarded to COUNTY ARCHITECT, COUNTY HALL, CARDIFF, not later than fourteen days after the appearance of this advertisement.

Canvassing directly or indirectly will disqualify.

RICHARD JOHN,
Clerk of the County Council.
March 30, 1955. [9013

APPOINTMENTS—contd.

AIR Ministry Works Designs Branch requires in London and Provinces (with liability for overseas service) Architectural Assistants, experienced in planning/preparation of working drawings and details for permanent and semi-permanent buildings, salaries up to £810 p.a. for men and £690 for women, starting pay dependent upon age, qualifications and experiences, extra duty allowance or overtime payable; posts non-pensionable with long term possibilities; natural born British subjects only.—Write, stating age, qualifications, employment details, including type of work done, to Ministry of Labour, 236, Walworth Rd., London, S.E.17, quoting Order 81/AB. [8744

MISCELLANEOUS SECTION

RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.
BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o, "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.
PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.
No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

WANTED, Architects with experience or who want to gain experience in modern hospital work.

THREE vacancies with salaries £600-£900 p.a., plus bonus, according to experience and ability; write for appointments only if possessing keenness and initiative and two years' experience.

THESE vacancies are suitable to the type of man wanting to work in a small office (staff about 14) where there is freedom, but a high standard of individual responsibility encouraged. [9010

ASSISTANT required for general practice in Woking and London; Inter. standard; office experience essential.—Whitburn, 12, Broadway, Woking 810. [9012

SURVEYOR requires occasional assistance for site surveys, levels, plans in connection with estate development; London and Home Counties; fees by arrangement.—Box 2984, c/o A. & B.N. [8998

MINOPRIO & SPENCELY & P. W. MACFARLANE need experienced Architectural Assistant, salary £750 to £850, for London office.—Write 18, Seymour Street, W.1. [8959

ADAMS, HOLDEN & PEARSON require senior and junior architectural assistants immediately.—Write, giving particulars of experience and salary required, to 38, Gordon Square, W.C.1. [8901

ARCHITECT'S Assistants required (1 senior and 2 juniors) for West End office.—Write stating full particulars and salary required to Box 2085, c/o A. & B.N. [8819

ARCHITECTURAL Assistants urgently required up to Intermediate Standard and preferably with office experience. State salary required.—Fowler, Grove & Haggar, 140, Lodge Rd., Southampton. [8984

SIDCUP Architect wants Assistant, R.I.B.A., Intermediate standard; small, busy office with good class contemporary work and young staff; salary according to experience.—Tel. Poo. 3166/7. [9011

ASSISTANT (male) required immediately. Final Standard with at least four years' office experience. Salary approx. £650.—Apply, Messrs. Walters & Kerr Bate, 14, Gray's Inn Square, London, W.C.1. Tel. Holborn 9850. [8972

ARCHITECTURAL Assistants required, varied work, salaries £700 to £750; write, stating age, training, experience, present salary; all interview expenses paid.—G. de C. Fraser Son, & Gearey, Chartered Architects, 27, Dale St., Liverpool. [8989

W. H. WATKINS, GRAY, FF.R.I.B.A., & PARTNERS, require Architectural Assistants of Intermediate standard for Bristol office; applicants should preferably have passed R.I.B.A. Intermediate and be studying for Final; must be good draughtsmen and have good practical experience; contributory pension scheme in operation.—Apply in writing, giving age, experience and salary required, to 1, Clare St., Bristol, 1. [8942

ARCHITECTURAL APPOINTMENTS VACANT—contd.

ELIE MAYORCAS requires immediately qualified architectural assistant, with some office experience, for interesting contemporary projects; salary up to £600 per annum, according to ability.—Apply in writing, giving details, to 13, David Mews, Baker St., W.1. [8965

FARMER & DARK urgently require Assistants of all grades to work on a wide variety of new large scale industrial schemes. 5-day week. Non-contributory pension scheme. In applying please state experience fully and salary required.—Farmer & Dark, Romney House, Tufton St., Westminster, S.W.1. [8921

SAMUEL MORRISON & PARTNERS require assistant architects of Intermediate and Final standard, with or without experience; work includes interesting contemporary schools, factories, shops and houses in various parts of the country, industrial design and the development of prefabricated structures; salaries comparable to Local Authority scales; interview expenses paid; good office accommodation in pleasant surroundings.—St. Alkmund's House, Belper Rd., Derby. [9002

ARCHITECTURAL assistants required by B.B.C. in London for work on design of studios, transmitter and office premises; candidates should be up to Intermediate or Final R.I.B.A. standard and have had some design office experience; salary in scales £545 to £755 or £645 to £880 according to qualifications and experience.—Requests for application forms to Engineering Establishment Officer, Broadcasting House, London, W.1, within 7 days quoting ref. EX.27, A.B.N. [8917

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

SHORTHAND-TYPIST required, architect's office, West End; 5-day week.—Apply Box 2985, c/o A. & B.N. [8999

ASSISTANT required in busy practice in West End, in early '20s, about Intermediate R.I.B.A. standard; excellent opportunities of gaining all-round experience.—Box 0672, c/o A. & B.N. [0636

JUNIOR Draughtsmen required for reinforced concrete work involving all types of structure; previous experience of reinforced concrete work not essential; five-day week.—Apply "Twisteel" Reinforcement, Ltd., Alma St., Smethwick, Staffs. [8944

SITUATIONS VACANT—contd.

MAINTENANCE Supervisor required for group of West End Hotels, interesting and varied work covering maintenance, improvement schemes and construction; excellent prospects and good remuneration for the right applicant.—Write stating experience to F. Kobler, Washington Hotel, Curzon St., W.1. [8947

ASSISTANT buyer reqd. by large firm of building and civil engineering contractors in the Sutton (Surrey) area; must be able to take off and order materials from drawings; salary according to age and experience.—Write Box No. 557, c/o Geo. Murray (Advtg.), Ltd., Brettenham Hse., Lancaster Pl., London, W.C.2. [9006

A WELL-KNOWN Midland motor manufacturer requires an architectural trainee who has completed his intermediate R.I.B.A. for work of interesting and responsible nature; he will be given opportunity to design complete garage premises.—Reply, stating age and all relevant details, to Box 2126, c/o A. & B.N. [8826

DRAWING office assistant reqd. by large firm of building and civil engineering contractors in the Sutton (Surrey) area, chiefly to prepare joinery details from one-eighth inch scale drawing; part-time assistance considered; salary according to age and experience.—Write Box No. 556, c/o Geo. Murray (Advtg.), Ltd., Brettenham Hse., Lancaster Pl., London, W.C.2. [9007

SITUATIONS WANTED

YOUNG designer, N.D.D. experience, mainly metals, wide interests, requires appointment offering scope and opportunity.—Box 2986, c/o A. & B.N. [9003

SERVICES OFFERED

SCALE models and perspectives made from original plans; new type of materials and latest technique used; competitive estimates free.—Studio Sharon, 102, Westbourne Grove, W.2. Bay. 8571. [9009

FOR SALE

JOINTLESS composition flooring in attractive colour range—quotations free.—Full particulars from the Liotex Asbestos Flooring Co., Ltd., 3, Corbetts Passage, London, S.E.16 (Dept. A). Bermondsey 4341-2-3. [0622

FOR SALE—contd.

FISH HILL QUARRIES, Fish Hill, near Broadway, Worcs. COTSWOLD BLOCK STONE suitable for dressing. Small samples can be sent on application to: BAILLIE, BRIND & CO., LTD., Prudential Chambers, Banbury, Oxon. [9014

ALL hardwood mouldings, plain and embossed, embossed ornaments and dowels; send for catalogue and to-day's lowest trade prices.—Dareve's Moulding Mills, Ltd., 60, Pownall Road, Dalston, E.8. Clissold 1543/4. [0142

NEW Cast-iron Gutters and Pipes in stock at stores, Hanwell, London, W.7. Moulded, O.G., H.Rd., Box, Boundary Wall, Valley Gutters made from 4in to 30in wide, R.W. Pipes, 2, 2½, 3, 3½, 4 and 6in.—Hills Bros. (Est. 1932), 49, Queen Victoria St., London, E.C.4. (City 3094.) [8990

PLANT FOR SALE

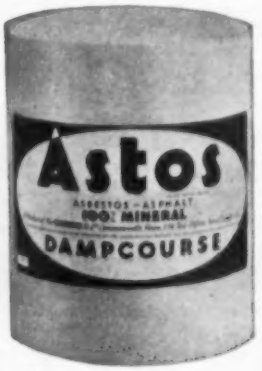
EVANS OF BOW.
IF IT'S SCAFFOLD FITTINGS WE HAVE THEM.
S/H, Bolton, Norstel, Burton, "Big Ben," S.G.Bs. and other types of fittings can be supplied in quantity, Sheradized as new.
ALSO 125,000 S/H ft of Alloy Tubular Scaffolding, random lengths.
All material is in first-class condition and can be supplied from stock and inspected.
Contact C. Evans & Sons, Ltd., Burnside Wharf, Burnside Street, Bow, E.3.
Phone ADVance 3467 and 4949. [8968

PARTNERSHIP

FINANCIAL assistance may be provided in approved cases for the purchase of a partnership in established architects' practice, with insurance endowment.—Chase Agencies, Ltd., 325, Chase Road, N.14. Pal. 4467/8. [0696

PRIVATE DRIVES & ROADS

DRIVES, Forecourts, Roads, etc., resurfacing or new construction by Specialists. Tarmacadam, Tar-spraying Chippings, Shingle, etc. Estimates free.—Stanley Lucas (Slough), Ltd., Alexandra Rd., Slough 21279. [0136



Ingram Farm Estate, Bexhill.
Architect: Bexhill-on-Sea Borough Council.
Dampcourse: Standard Astos.

Astos

ASBESTOS DAMPCOURSE

The life of a building depends on the dampcourse, and yet the difference in cost between ASTOS ASBESTOS DAMPCOURSE and any ordinary dampcourse is very small in relation to the cost of a building. To provide a permanent barrier against rising damp *and* allow for stresses due to vibration and foundation settlement, your best course is to specify ASTOS ASBESTOS DAMPCOURSE. Send for Catalogue No. 351 on Standard and Lead-lined Astos Dampcourse.

In rolls of 24 lineal feet in all wall widths up to 36 inches. Standard and Lead-lined.

THE RUBEROID COMPANY LIMITED, 94, COMMONWEALTH HOUSE, NEW OXFORD STREET, LONDON, W.C.1.
DC. 155

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Official Notices, Tenders, Auctions, Legal and Miscellaneous Appointments on pages 43, 44 and 45

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Cafferata & Co. Ltd. — Callow Rock Lime Co. Ltd., The — Carborundum Ltd. — Cantie Switches Ltd. — C. & P. Development Ltd. — Cape Asbestos Co. Ltd., The — Carlisle Plaster & Cement Co. Ltd. — Cellon Ltd. 12 Celotex Ltd. 4 Cement Marketing Co. Ltd. 15 Chatwood Safe & Engineering Co., Ltd. — Chase Products (Engineering) Ltd. — Cheetham, H., & Co. Ltd. — Chesterman, James & Co. Ltd. — Chilton Steel Ltd. — Chubb & Son's Lock & Safe Co. Ltd. — Churchouse, C. M., Ltd. 38 Clarke Eliard Engineering Co. Ltd. — Clark Hunt & Co. Ltd. 38 Claughton Bros. Ltd. — Clement Bros., Haslemere, Ltd. — Cloakroom Equipment Ltd. — Coal Utilisation Council 25 Colas Products (Sales) Ltd. — Colthurst Symons & Co. Ltd. — Compactom Ltd. — Condrup Ltd. — Conex-Terna Ltd. — Cork Manufacturing Co. Ltd. — Costain, Richard, Ltd. — Coverite (Asphalters) Ltd — Cozens Ventilators Ltd. 33 Crittall Manufacturing Co., Ltd. The 29 Crossman, W., & Sons — Crudens Ltd. 34 Cullum, H. W., & Co., Ltd. — Curfew Doors and Shutters Ltd. — Cuthell, D. M., & Co. Ltd. 37 Cutting, R. C. —

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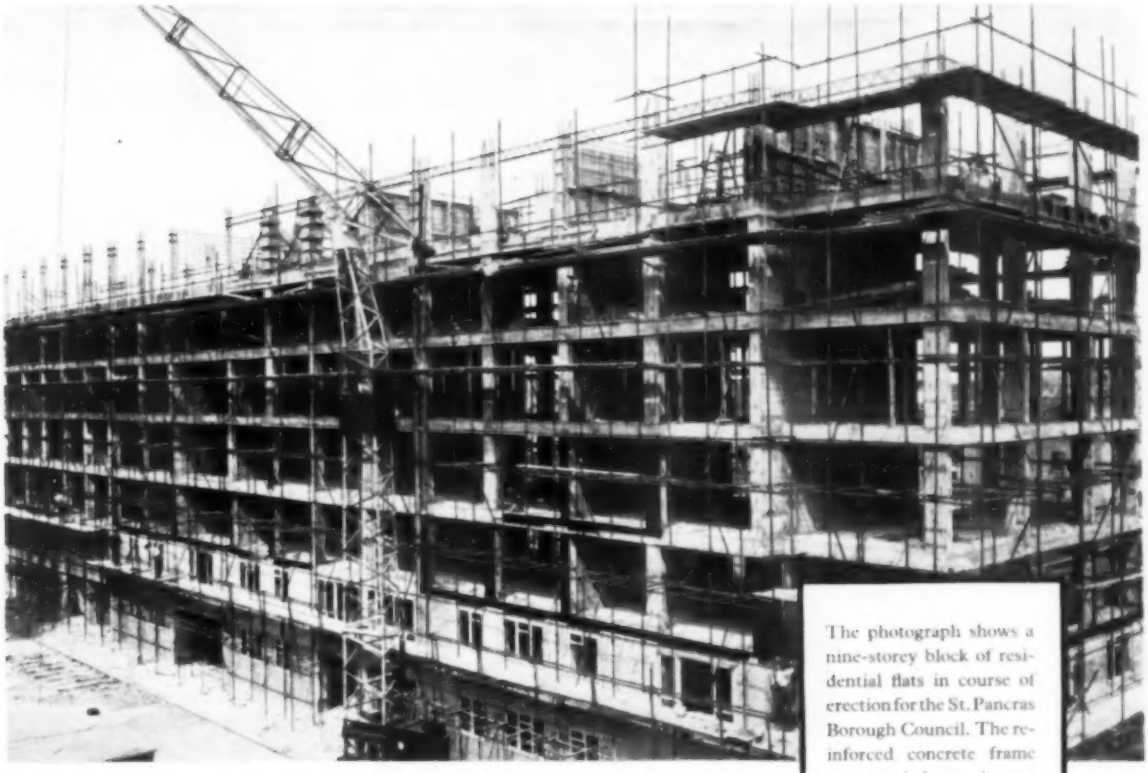

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